TECHNICAL THEME PAPERS
(HFS) PROJECT
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HEALTH FINANCING AND SUSTAINABILITY (HFS) PROJECT

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FOREWORD

At the end of each year, the Health Financing and Sustainability (HFS) Project produces theme papers to review the issue that have arisen in the course of its work and assess how they are being addressed. The papers, organized around the five technical areas set out by the Agency for International Development (AID), review the experiences of HFS in different countries, draw lessons for application in the coming years, and indicate future directions for HFS. While the papers' primary audience is the United States Agency for International Development (USAID) Mission and Bureau personnel, other audiences, including government planners, nongovernmental organizations, and international donors and lending agencies, may also benefit by applying some of the lessons learned to ongoing activities.

The papers follow a similar format, beginning with a discussion of issues and problems. This is followed by country examples, which describe how problems were approached, what solutions were proposed, and what lessons were learned. The five Year Three Theme Papers and their authors are listed here:

The HFS Project Mandate

Health Financing and Sustainability (HFS) is a five-year project, begun in 1989, of the Health Services Division, Office of Health, Bureau of Research and Development, of the United States Agency for International Development. HFS provides technical assistance, conducts applied research, and disseminates information about health financing and organization in developing

- "Resource Generation Through Cost Recovery" - Richard Poresky
- "Health Service Costing" - Holly Wong and Brad Barker
- "Public-Private Collaboration" - Kenneth Currier
- "Resource Allocation and Management for Effective Health Care" - John Novak and Keith McInnes
- "Social Financing of the Demand for Health Services" - Keith McInnes

In addition to the principal authors, the entire staff of the project contributed to the theme papers, either by providing specific information about project activities or reviewing and commenting on draft versions.

HFS Technical Areas

- Cost Recovery
- Health Care Costing
- Public-Private Collaboration
- Resource Allocation, Use, and Management
- Social Financing of Demand

The Year Three Theme Papers differ from earlier ones both in the breadth of experience described and in a greater cross-fertilization of ideas from previous years and from different countries. Year one papers were largely exploratory, identifying issues and questions rather than proposing solutions. Year two papers discussed issues from many more countries, but as the HFS work was often in early stages, it was premature to draw conclusions. The year three papers, however, describe completed as well as ongoing activities, and provide more research conclusions and assessments of the effectiveness of interventions than either Year One or Year Two Theme Papers.

A major thrust of HFS' work is assisting governments in health finance policy formulation and implementation. This is reflected in these theme papers, which document the many HFS studies designed to gather data for use by decision-makers in formulating sound health care financing policies. The research is of many types, from household surveys, to public sector expenditure reviews, to management assessments. It is both prospective in nature, as in Niger, where research into cost recovery mechanisms emulates a controlled experimental design; and retrospective, as in Peru, where examination of cost and utilization data in government and private facilities yielded important information for strengthening cost recovery systems.

Two themes that run throughout the five papers are the vital nature of research for informed policymaking, and expanding the role of the private sector in health care financing and delivery. In relation to the first theme, without accurate data, policymakers may make poor policy decisions based on anecdotal information (the general applicability of which is usually suspect), and are more likely to succumb to the wishes of interest groups. For example, an HFS study in Belize, discussed in the Resource Allocation paper, found that inefficiencies at government facilities were not caused by a shortage of medical specialists, as was widely believed, but rather from a shortage of nurses. The policy implications of the two conclusions are quite different, as are the cost implications of remedying the problem.

Complementarity of Technical Approaches

The scope of work assigned to HFS by A.I.D. specifies the five technical areas that are covered by the annual theme papers. Four of them represent approaches to health financing policy that often are complementary and interlocking. The fifth technical area, costing, is a technique used frequently by HFS in performing analyses in support of each approach.

The following few sentences provide an idea of how the approaches represented by the technical areas complement each other. Public-private collaboration usually means that the public sector will allow, regulate, and often foster development of the private sector to improve allocation, use, and management of resources. Cost recovery in the public sector is undertaken to generate more resources for the health system. To complement the institution of cost recovery, improvements in quality are usually sought, often through increased efficiency in the use of resources. When cost recovery and increased private participation become important features of a health financing system, the need grows for social financing mechanisms to spread financial risks among individuals and households. The combination of approaches that HFS might recommend in a given case depends on the particular legal, cultural, political, economic, and institutional circumstances of the situation.

The second theme, the move toward more market-oriented health systems in developing countries, suggests that the application of private sector techniques to the public sector and an expanded role for the private sector in financing and providing health care are likely to lead to more efficient delivery of health care services by both sectors. This implies not an elimination but a redefinition of the state's role in ensuring the delivery of health services. Government may finance a more limited set of services, provide services for the poor, and act as regulator and promoter of a greater private sector role in the provision and financing of services.

The whole set of theme papers for years one to three constitutes a record of where HFS has been, and a road map of where it is likely to go in the future. In the coming two years, HFS will draw upon the experiences, particularly the lessons, of the past three years to better assist countries in addressing health financing problems. The Year Three Theme Papers represent the most recent version of this road map.

RESOURCE GENERATION THROUGH COST RECOVERY

by
Richard Poresky

In recent years, more and more developing countries have been experimenting with or instituting cost recovery programs for government health facilities. The economic recession of the 1980s severely strained government budgets, making it more difficult to provide free health care to the majority of the population. Cost recovery was seen as a mechanism to increase resources for the health sector, improve the efficiency and quality of government health services, and facilitate the equitable distribution of health care resources.

Each year, the Health Financing and Sustainability (HFS) Project produces a theme paper on cost recovery. The Year 1 Theme Paper (1991) stressed the importance of existing political, economic, social, and managerial conditions, and suggested study of the local conditions and a moderate pace for cost recovery activities.

The Year 2 Theme Paper focused on the issues of inadequate revenue, inappropriate allocation of public budgets, inequity of taxation and spending, and poorly managed utilization. It found that cost recovery was a useful health policy tool, but that other tools are also required and further information is needed to ensure fairness and evaluate the results of cost recovery efforts.

The objectives of this Year 3 Theme Paper are to: briefly describe the current status of cost recovery activities in developing countries; discuss key elements of the cost recovery process and what has been learned from recent HFS activities in those areas; and outline questions for further inquiry.

The paper begins by placing cost recovery in the context of the whole range of health financing and health services delivery arrangements practiced in developing countries. It presents the percent of health care costs financed by cost recovery in a number of developing countries and discusses the cost recovery situation in countries where HFS is working. It then focuses on the following topics:

- Developing the knowledge base needed for cost recovery;
- Management change and quality improvement for cost recovery;
- Strengthening cost recovery and increasing its revenues, and
- Primary health care (PHC) services.

After a general discussion of these topics, HFS country experience is described. The paper concludes with lessons learned and future directions for cost recovery.

COST RECOVERY SOURCES AND METHODS

The roles of public and private sources in paying for health services are outlined graphically in *Exhibit 1-1.*

EXHIBIT 1-1
FUNDING SOURCES AND PROVIDERS OF HEALTH SERVICES

PROVIDER	FUNDING SOURCE		
	Government	Government/ Nongovernment Combination	Non-government
Government	A	B	C
Nongovernment	D	E	F

Source: Newbrander, W., 1992.

Block A indicates a situation where the government is both providing and paying for the bulk of health services, a typical situation for developing countries. In block B, nongovernmental funding sources, such as user charges, help pay for government-provided services. Cost recovery in this paper refers to the process of moving from block A to block B, from solely government financing of government-provided health services to joint private/government financing of those services.

Block C, a situation seldom encountered, involves exclusively nongovernmental funding of government-provided health services, such as user charges covering all the costs of government-provided health services. Block C is not yet a common situation. Blocks D, E, and F involve private provision of health services and are the focus of the Public-Private Collaboration Theme Paper presented elsewhere in this set of papers.

Although this paper focuses on resource generation, charging fees can have multiple objectives other than generating revenue, including the following:

- Signals patients that they are using valuable resources;
- Discourages overconsumption of services;
- Encourages efficiency;
- Improves accountability for health activities and resources;
- Provides incentives and resources for decentralized decision making;
- Supplies a means of achieving equitable access by shifting government subsidies away from those able to pay and towards those who are not, and
- Generates resources to improve quality of care and patient satisfaction.

Cost recovery revenue sources and means of collecting revenue are numerous. Sources of revenue include patients and their families, employers, private insurance, social security, and other government entities (e.g., a government ministry paying directly for its employees' health care services or reimbursing the ministry of health [MOH] for services received). Common revenue collection methods include fee per visit, fee per episode of illness (repeat visits for the same illness are free), and prepayment schemes (discussed at greater length in the Social Financing Theme Paper by Keith McInnes).

THE STATUS OF COST RECOVERY IN SELECTED COUNTRIES

Developing countries have employed cost recovery in government health systems since the 1970s. ***Exhibit 1-2*** provides data for selected countries on the percent of health care system costs financed by cost recovery. The exhibit indicates whether the coverage statistics are national or subnational.

EXHIBIT 1-2
PERCENT OF COSTS RECOVERED FOR SELECTED COUNTRIES

Country	Type of Data	Years	Range, percent
Benin[1]	Health Centers	late 1980s	40
Bolivia[2]	Santa Cruz Hospitals	1984 - 1988	12 - 64
Botswana[3]	MOH Recurrent Expenditures	1974 - 1983	1.3 - 7
China[4]	All Health Expenditures	1985 - 1987	77.8 - 85.6
Colombia[5]	All levels, budgeted	1980	17.4
Ethiopia[6]	All services	1983	20
Ghana[7]	Recurrent MOH Expenditures	1985 - 1987	7.3 - 11.8
Honduras[8]	15 Hospitals	1983 - 1985	3.3 - 4.2
Indonesia[9]	All Government Hospitals	1983 - 1986	6.2 - 20.2
Jamaica[10]	All Hospital Regions	1984 - 1987	2.8 - 5.0
Kenya[11]	Financing Project	1992	2.0
Lesotho[12]	Recurrent MOH Expenditures	1974 - 1989	5.8 - 16.0
Swaziland[13]	All Public Hospitals	1983 - 1989	2.0 - 4.7
Turkey[14]	All MOH Hospitals	1984 - 1987	9.1 - 12.6
Zaire[15]	Health Zones	1985	67 - 90
Zimbabwe[16]	Recurrent MOH Expenditures	1981 - 1988	2.5 - 4.3

Sources: see endnotes pg. 11.

Only five of the cited countries have achieved cost recovery of over 20 percent, and often it was in a select group of facilities rather than the health system as a whole. Most countries experience less than 10 percent of costs recovered. This suggests that cost recovery is not the sole solution to health financing problems in the short term. The rates of cost recovery achieved at the high end, however, indicate the potential for greater cost recovery in those countries at the low end.

HFS ACTIVITIES THAT ADDRESS COST RECOVERY

The next four sections discuss HFS cost recovery activities in countries where HFS is or has been working. Most of the countries had limited experience with cost recovery until the last five or ten years. In some countries, such as the Central African Republic (CAR) and Haiti, mission hospitals have long used cost recovery techniques while government hospitals generally have not.

Successful implementation of major cost recovery programs in countries where governments have provided free health services is difficult and time consuming, as referenced in the Year 2 Theme Paper. Before embarking on a large-scale cost recovery program, governments (or other implementing organizations) would ideally possess the following knowledge about:

- The willingness and ability of the public to pay for services;
- Current laws and regulations relating to health financing and the changes necessary to legalize cost recovery;
- What local cost recovery experiences (e.g., from religious mission or private facilities) indicate about local feasibility;
- Costs of health care goods (e.g., drugs) and services to indicate appropriate pricing; and
- The management capability at local levels for new responsibilities relating to cost recovery.

This information is needed for governments, providers, donors, and technical advisers who are trying to strengthen the financial base for health services.

HFS has assisted a number of countries in addressing these knowledge gaps, as summarized in ***Exhibit 1-3***.

EXHIBIT 1-3
COST RECOVERY ISSUES AND HFS EXPERIENCE

ISSUES	HFS EXPERIENCE
Willingness to pay	CAR
Laws and regulations	Ecuador, Pakistan, Belize, Fiji, CAR
Nongovernmental local experience	CAR, Pakistan
Costing services as pricing guide	CAR, Peru, Fiji
Management capability for cost recovery	Egypt, Pakistan, Kenya

In 1991, HFS placed a long-term advisor in CAR who helped the MOH carry out a series of studies and develop a preliminary cost recovery strategy. The studies included: a national inventory of current cost recovery activities in public and private health facilities; a costing study at government hospitals; estimates of the per patient costs of four fee collection options for PHC (for drugs, laboratory work, per person contribution for building maintenance, and consultation fees); a survey of health benefits provided by private sector employers; and a national willingness-to-pay survey.

In Egypt, HFS and the MOH planned and implemented a strategy to convert selected hospitals and polyclinics to cost recovery status. HFS helped develop the criteria for selecting the hospitals, plans for improving the quality of their services, and a marketing strategy.

In Kenya, HFS conducted the Preventive and Primary Health Care (P/PHC) Resource Gap Study to estimate the additional financial resources needed by MOH to operate its P/PHC system at full capacity. It was estimated that recurrent expenditures meet only 63 percent of full capacity P/PHC needs, and that the total MOH budget meets only 79 percent of full capacity P/PHC needs. At MOH-recommended fee levels, cost sharing would have been able to fill approximately 15 percent of the P/PHC financing gap. The study provides a baseline on current allocations and is a means of measuring shifts in resource allocations or increased cost recovery revenues to close the gap.

In Pakistan, HFS is assisting the MOH in reviewing its policy options for cost recovery. HFS has studied relevant legal issues; the availability of religious funds to help pay for health services for the indigent; feasibility of private health insurance based on managed-care principles; prospects for establishing a hospital accreditation system; capability of rural and hospital services for undertaking cost recovery; costs of rural health services; and costs and financial systems of teaching hospitals. These studies are discussed in later sections in both this theme paper and the paper on social financing.

In the Arequipa region of Peru, HFS conducted studies on the structure, utilization, and operating costs of both government and private health services, and a household survey of health service utilization patterns. HFS recommended developing a high level advisory council; refining the user fee system in hospitals, health centers, and health posts; and considering the decentralization of authority to local facilities.

MANAGEMENT CHANGE AND QUALITY IMPROVEMENT FOR COST RECOVERY

Cost recovery can be a relatively limited effort to introduce user fees where they previously did not exist, or it can signal a major change in the way health facilities are organized, managed, and financed. In this latter case, cost recovery can be a key element in converting health facilities from government management and financing with little incentive to provide quality services to institutions which are increasingly required to compete for physicians, patients, and funds. Once user fee revenues become an important part of a facility's available resources, then quality of care becomes important to attract paying patients. Preparing for competition on the basis of quality and efficiency is the primary focus of this section.

Quality and efficiency, as indicated in this paper, are among the goals of cost recovery. To achieve these goals, a combination of physical and management improvements are needed. Health facilities that offer attractive facilities and quality services find it easier to attract physicians and paying patients. Cost recovery revenues can then be used to maintain buildings, broaden the range of services, and improve quality. This, in turn, can further enhance utilization. Cost recovery also implies a competitive environment in which health facilities compete with one another in terms of cost and quality. Such competition provides a strong incentive for efficiency.

HFS has been involved in major efforts in Egypt and Pakistan to improve the management and quality of health facilities as elements of cost recovery programs.

In Egypt, HFS has been assisting the Cost Recovery for Health Project (CRHP) since 1990 in its efforts to convert 10 hospitals and polyclinics to independent cost recovery centers. As recommended by HFS, an early step towards cost recovery is quality improvement through physical rehabilitation of the CRHP hospitals. The physical and other improvements that HFS has been supporting include:

- Improving safety and sanitation of physical plants (over 300 hospital standards were developed);
- Drafting conversion plans;
- Conducting marketing studies (through household, patient, and provider surveys);
- Conducting management training;
- Creating business plans, and
- Developing financial and management manuals.

The government of Pakistan is considering providing MOH hospitals with sufficient autonomy to enable them to improve quality and efficiency and introduce revenue generation from private sources. The increased management authority and the introduction of user fees would allow the government to reduce its subsidies to hospitals. The resources saved could then be directed toward health services for the poor.

HFS also examined the management, organization, and legal status of government hospitals. The study led to a series of policy options and recommendations for granting greater autonomy to the hospitals and improving their management, organization, and financial status. Legislation is being recommended to provide hospitals with the authority to raise funds, develop their own budgets, establish policies, and manage their personnel. HFS, working closely with senior MOH officials, has proposed: revised organizational structures, including management boards; refined mission statements; mechanisms to raise and manage funds; revised personnel management systems including the authority to hire and fire; the introduction of marketing; improved management information systems; and increased training of personnel.

In addition to advising on management changes, HFS worked with the MOH and nongovernmental health care leaders to develop recommendations for the establishment of a hospital accreditation board which would develop and implement national standards for hospital operations. In June 1992, a National Workshop on Hospital Standards and Accreditation led by HFS reached a consensus that:

- A set of minimal national standards are needed for all hospitals;
- A national council, with provincial chapters, should be formed, supported by legislation from the federal legislature;
- The process for developing standards would be decided by the national council;
- Accreditation should be voluntary;
- The federal government should address the issue of compulsory hospital registration and licensing.

In summary, a cost recovery approach in Pakistan's government health facilities places them in competition with nongovernmental - both private and private voluntary organization (PVO) - facilities in terms of costs as well as quality of services. Thus, government facilities have a strong incentive to improve the quality and efficiency of their operations and services. To succeed, many of the government health facilities need to upgrade their management and organizational structures.

STRENGTHENING COST RECOVERY PROGRAMS AND INCREASING COST RECOVERY REVENUES

In most countries where cost recovery at government facilities has been introduced, cost recovery revenues represent only a small percent of total facility or system expenditures. There are a number of reasons for this, including:

- The revenue generating facility is not permitted to retain and use the revenues, which reduces the incentive to collect fees;
- Failure to adjust fees for inflation limits the percentage of costs recovered;
- Limited political and popular support restricts the willingness of decision makers to raise fees;
- Low collection rates due to unclear exemption policies for the indigent and concerns by health institutions that user fees may place an unfair burden on the poor; and
- Weak management results in excessive costs, facilitates misappropriation of resources, and produces poor quality of services.

HFS has been studying and advising a number of countries on how to strengthen their existing cost recovery programs.

In Belize, only about two percent of recurrent costs are recovered through fee revenues at government health facilities. Cost recovery is legally mandated but not effectively managed. Fees have not been adjusted since 1967, despite inflation and other cost increases. A bewildering array of laws govern fee schedules, few health officials have knowledge of the mandate, and charges and exemptions vary. HFS made a variety of recommendations, including: introducing autonomy for health facilities as a necessary first step for the development of a successful cost recovery policy; permitting facilities to retain cost recovery funds they collect; developing a computer simulation program to study effects of increasing fees; and undertaking several large-scale studies to support the autonomization process.

In Fiji, as in Belize, the provision and financing of health services are principally the responsibility of the government. Cost recovery exists, but on such a limited basis that fee revenues represent less than two percent of costs. Government pharmacies provide drugs at no charge, but supplies are limited. Community pharmacies, which at times share facilities with government pharmacies, sell drugs at a small mark-up and are better stocked. HFS recently conducted an assessment of the cost recovery system, including analyzing the costs of health services, reviewing fee structures and revenues, and presenting options for improving the cost recovery system. The study recommended allowing facilities to retain part or all of the revenue they collect; strengthening the current means testing system to protect the poor; and improving the quality of care to be able to institute fees that more closely approximate costs.

The study was followed by an HFS-led policy workshop of senior MOH officials to review the results and plan a strategy for health financing reform. As a result of the workshop, the MOH is seeking cabinet approval to implement a revised cost recovery program which would include fees for in and outpatient services, drugs, and ancillary services at referral hospitals, and retention of revenues within the health sector.

INTRODUCING COST RECOVERY FOR PRIMARY HEALTH CARE (PHC) SERVICES

In some countries, cost recovery has been limited to urban hospitals: fees are collected from urban middle and upper class hospital patients to subsidize the cost of services for the rural and urban poor. A number of efforts around the world, however, suggest not only that cost recovery is appropriate in PHC settings as well as in hospitals, but also that it can contribute substantially to the financing of these services.

PHC cost recovery is particularly important in developing countries because often a major share of health operating budgets is for salaries, leaving little for drugs and other supplies. Under these circumstances, even an incremental increase in income for PHC facilities can have a disproportionate impact in the quality and quantity of health services.

A focal point of cost recovery for PHC services in developing countries is the Bamako Initiative (BI), started in 1987. Originally for sub-Saharan Africa, the BI, which was promulgated by the World Health Organization (WHO), United Nations Children's Fund (UNICEF), and Africa health ministers, now counts 33 countries with ongoing BI-type activities. It seeks to involve the community in the management and financing of local PHC services in an effort to revitalize the public health sector. It emphasizes, but is not limited to, revolving drug funds. Other objectives are strengthening district management, generating revenue for health facilities, improving quality, and strengthening the partnership among government, community, and donors.

Data are not complete on revenue amounts or percent of costs covered by the initiative, but two countries which are thought to be among the most successful are Benin and Guinea, where Knippenberg and others have found that cost recovery revenues cover over 40 percent of operating costs in participating facilities. While the revenues are often used to pay for drugs, they are used for other purposes as well, among them staff incentives, supplies, and other operating costs.

In addition to having raised substantial revenues, the BI has begun to show that public sector health facilities experience increased utilization once the quality of care is raised sufficiently to attract community financial and management support.

HFS activities in cost recovery for primary health are consistent with BI principles; and have focused on Pakistan, the CAR, Niger, and Peru.

In Pakistan, HFS is examining the potential for strengthening both the management and the financing of rural health services in Islamabad Capital Territory. HFS is assessing the feasibility of government contracting with private for-profit and non-profit groups to have them operate rural primary health care services and introduce user fees. The contracting organizations would retain user fee revenues for quality improvements and staff motivation. Government subsidies would be maintained and religious funds tapped to keep fees modest, thereby ensuring financial access by the poor. Community oversight of the services is regarded as essential to success.

In carrying out this work, HFS is: assessing the clinical quality in rural health facilities; estimating the cost of providing services; determining the interest of private groups in participating in a contractor program; studying referrals between rural and urban facilities; examining the roles communities can play in overseeing services; and exploring the role that religious funds can play in paying for rural health services for the indigent.

In the CAR, HFS examined the per patient costs at PHC facilities for drugs, laboratory work, consultations, and building maintenance. The costs were found to be modest and the data were used in designing the questionnaire for a willingness-to-pay survey. HFS recommendations included: consider charging a fee for laboratory tests; ensure that fees collected from sales of pharmaceuticals are kept separate from other monies so that drug revolving funds can be sustained; consider charging a per episode consultation fee, part of which would be used for salary supplement incentives; and add a small charge to the per episode consultation fee for building maintenance.

In Niger, HFS is helping the MOH test alternative models for user charges in PHC. The alternatives are a tax plus co-payment and a fee per episode. The project is to be completed in 1994.

In Peru, HFS performed an economic analysis of the design for the Strengthening Health Services in Peru (SHIP) project. The purpose of SHIP is to develop and evaluate alternative models of delivery and financing of health services, with a focus on PHC. The analysis found that the pricing structure for the proposed project was within the reach of the majority of the local residents, but that some cross-subsidization was appropriate.

SUMMARY AND LESSONS LEARNED

This paper has focused on assisting government health programs implement cost recovery in an effort to generate revenue for the improvement of quality of care. It has also presented data on cost recovery in a number of countries. Four elements of successful cost recovery programs were highlighted: developing the knowledge base; developing the management and quality base; strengthening cost recovery; and introducing cost recovery in PHC.

The main lessons drawn from the HFS Year 3 experience in cost recovery are:

- Even poor rural inhabitants are willing to pay for government health services when quality of care (including availability of drugs and other supplies) is maintained at an acceptable level;
- Instituting cost recovery programs does not guarantee improved quality of care. Management improvements and the retention of fee revenues at the facility or local level, as part of a cost recovery program, increase the likelihood that quality will be improved;

- The willingness of political leaders to embrace cost recovery often depends on demonstrations of successful programs such as through pilot tests (and HFS' work in Niger).

Application of these lessons and those from Years 1 and 2 to ongoing cost recovery programs, research, and pilot tests has the potential to increase the success of cost recovery programs. Resources generated and efficiency gains made directly benefit the population in terms of improved quality of care and greater quantity of services, with the end result of improved health.

FUTURE DIRECTIONS

As noted earlier, cost recovery at government health facilities is still at an early stage of development in most developing countries. There has been progress, but still many questions remain concerning the appropriate circumstances at which to implement cost recovery, and the most effective designs of cost recovery programs. The following questions indicate an agenda for future research on cost recovery. The list, while not exhaustive, is indicative of five issues to be addressed to increase the success of cost recovery programs: management autonomy, decentralization, and efficiency; quality; cross-subsidization; equity; and limits to cost recovery.

- ***Management autonomy, decentralization, and efficiency***: How critical are management autonomy and decentralization to the successful operation of cost recovery? What is the effect of cost recovery on efficiency? What other management techniques, such as holding managers more accountable for their units or better cost accounting, can make a major impact on the success of cost recovery?
- ***Quality***: How significant is cost recovery in increasing the quality of health services and how important is improved quality to the success of cost recovery? What are the best means to use revenues to increase quality and vice versa?
- ***Cross-subsidization***: What is the potential of cross-subsidization, such as wealthier facilities and services subsidizing poorer ones, or curative care subsidizing preventive?
- ***Equity in access to services***: To what degree has cost recovery limited the access to health services by the indigent, particularly to poor women and children? What are the most effective means of ensuring access to the poor?
- ***Limits to cost recovery***: What are the limits to cost recovery in developing (and developed) countries?

In conclusion, cost recovery is becoming a more important element in the effort to improve health financing and sustainability in developing countries. Despite the many questions which remain, the potential for cost recovery is promising, particularly when combined with other financing mechanisms such as social financing (insurance, etc.), greater private sector involvement, and improved allocation and management of resources.

ENDNOTES

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RESOURCE ALLOCATION AND MANAGEMENT FOR EFFECTIVE HEALTH CARE

by
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This paper provides a definition of resource allocation, develops an organizational framework to understand resource allocation issues, and reviews ways in which the Health Financing and Sustainability (HFS) Project has assisted countries in improving their allocation and management of health resources. There are three sections, corresponding to three important resource allocation issues the HFS Project has identified in its third year of operation, which treat the issues in general terms and provide specific country examples from HFS experience. The paper concludes with lessons learned and suggestions for future research and improvement.

The HFS Project strategy cites two over-arching aims: "...to increase the available revenues for the health sector... and to increase the efficiency (and equity) of resource allocation and use." (HFS Project Strategy, 1990). HFS works closely with governments both to generate additional resources for the health sector (for example, through establishing user fees, social financing such as insurance and other risk-sharing mechanisms, or expanding private sector service provision) and make better use of the resources currently available through allocation to cost-effective health programs and efficient management of resources.

The HFS approach to improving the efficiency of health care services includes consideration of equity (fair distribution of and financial and geographic access to health services). While the goals of equity and efficiency can be in conflict, with proper planning, increases in efficiency often can be achieved with little negative effect on equity.

In most developing countries, current health expenditures are neither sufficient nor adequately managed to meet the demand for primary health care services. Government services, which are usually financed through tax revenues and external foreign aid, are generally "underfunded, overcrowded, and have insufficient personnel and resources" (Korte et al., 1992).

The growing realization that existing and future demands for health services cannot be satisfied without major policy reforms has generated a policy dialogue at the highest levels. For example, the BI emphasizes strengthening local management, collection of fees for services, and the establishment of revolving drug funds, and represents alternative approaches to solely government funding and delivery of services. In addition, in 1987 the World Bank recommended that people pay for curative care, except in cases where they are too poor. (World Bank., 1987). These shifts in funding priorities have created an environment which encourages government efforts to reallocate additional resources to basic health services for the truly poor.

Through its technical assistance and applied research programs in over 30 countries, HFS has assisted U.S. Agency for International Development (USAID) missions and host country decision-makers to formulate health sector policy reform. HFS has promoted the adoption of cost recovery in government health facilities, encouraged the involvement of the private sector in the provision and financing of health services, assessed the feasibility of social financing mechanisms, and conducted studies and experiments to increase the efficiency of resource use in government health services. From this experience, HFS has learned that many developing country governments will actively support efforts to increase health sector spending, reallocate resources to a more cost-effective mix of programs, and improve the management of health resources.

The HFS approach to and experience with resource allocation can be organized in a three-level framework, presented in the next section.

RESOURCE ALLOCATION FRAMEWORK

The Project's Year 1 (1989-90) Resource Allocation Theme Paper summarized six issues which arose from requests for technical assistance from around the world: institutional development, efficient utilization of resources, cost containment, strategic and financial planning, logistics and distribution systems, and management skills. The Year 2 (1990-91) Theme Paper organized the first year's issues into a framework, which is the foundation for this Year 3 (1991-1992) paper. The framework examines resource allocation on two levels:

1. How resources should be allocated among sectors (e.g., health, agriculture, education), and
2. How resources should be allocated within the sector (e.g., immunizing children, providing tertiary hospital care, training health workers to provide family planning).

In keeping with this definition of resource allocation, this paper retains these two levels of analysis and adds a third:

3. How to improve the management of health resources and programs.

The three levels are discussed briefly here, and then in more detail later.

ALLOCATING AN OPTIMAL SHARE OF RESOURCES TO THE HEALTH SECTOR

In the initial allocation of government resources among the various sectors, ministries of health (MOHs) often receive what is perceived to be a small portion of the national budget. Recently, methodologies to demonstrate the economic benefits resulting from investments in different sectors have been used to assist in decision-making about the economic benefits of expenditures for the health sector as compared to other sectors, such as agriculture and infrastructure (Wheeler, 1980; Ingram, 1992). Application of these methodologies to developing countries indicates that improved health status is associated with economic growth.

While governments directly control how they allocate their own resources, they also influence, through policy, the private sector's resource allocation for health. By lifting legal constraints to private financing and provision of health care services - constraints that are common in many developing countries - governments can promote the expansion of private services and thereby increase overall availability of health resources (Griffin, 1990).

Finally, governments can increase the resources available for health services by implementing policies which encourage the establishment of cost recovery and social financing systems. These systems, through user fees and insurance premiums, allow private demand to generate additional resources to be used for health care services.

ALLOCATING RESOURCES WITHIN THE HEALTH SECTOR

Ideally, resources should be allocated within the health sector to produce the greatest possible benefit at the lowest cost. Often, to correct for prior misallocations, greater emphasis should be placed on preventive rather than curative interventions and primary rather than secondary and tertiary care-level programs. Consideration should be given to whether more cost-effective program alternatives exist for the provision of the required level of services. The re-allocation of existing resources within the health sector can substantially increase the amount and improve the quality of health service outputs per resource unit (Ron, 1986). To support this decision-making exercise, HFS has developed a health finance policy simulation model (Forgy and Knowles, 1991) to demonstrate the outcomes of alternative health finance allocation decisions.

IMPROVING THE MANAGEMENT OF HEALTH PROGRAMS AND RESOURCE USE

Management improvements can be designed to ensure the more efficient and effective utilization of available resources with greater benefits for the client population. Efforts should be made to establish incentives for health sector managers to contain costs; improve drug procurement, distribution, and management; improve budgeting and control systems; manage human resources; and apply financial management and cost effectiveness analyses to measure program benefits. Such incentives should result in system reforms, such as the substitution of nurses for doctors where appropriate, which provide greater amounts of service delivery per unit of cost.

An issue which runs through all levels of the resource allocation framework is *equity*. Governments must not only worry about the efficiency of resource use, but must also consider, in economic, social, and geographic terms, the accessibility by the entire population to health care goods and services. Accessibility is affected by demand side and supply side factors. On the demand side are socioeconomic status, gender, age, religion, and cultural factors. On the supply side are price, facility location and hours of operation, and quality of care and services.

In pursuing an equitable allocation of resources, governments can influence demand and supply through policy interventions. Policymakers concerned with equity must decide to what extent health resources should be redistributed to ensure equal or at least a minimum level of access to health services for all (Gilson, 1988; Musgrove, 1986). Policy decisions for redistribution of resources will likely include choices about facility location, price schedules, subsidization, and exemptions.

ISSUES IN RESOURCE ALLOCATION AND MANAGEMENT

When governments undertake reforms in the allocation and management of health sector resources, these reforms affect the size, mix, efficiency, and equity of both public and private health services. Presently, governments in countries where HFS is working are considering reforms which will:

- Increase the allocation of resources either by shifting resources from other sectors into the health sector or by increasing health sector resources with funds from new sources (such as user fees or social financing mechanisms). This includes encouraging the expansion of the private sector, which shifts demand for health care from the public to the private sector;
- Shift more current resources to preventive and PHC programs, thus increasing the availability of these programs to the general population, and
- Improve the management of health services, thus increasing the impact of current programs.

Using the framework outlined earlier, the following text discusses each of these issues in more detail and provides examples of how technical assistance can facilitate the achievement of resource allocation and management goals in specific countries.

Several recent studies have demonstrated that a greater investment by governments in social programs can provide sound economic and social returns. Past investments in health and education have increased productivity and had a positive impact on economic growth (World Bank, 1993). Improved health contributes to economic development by reducing productivity losses due to illness, increasing school enrollments and the ability of students to learn, and freeing resources which otherwise would have been spent on illness. If results such as these were more widely disseminated among policymakers and senior government officials, it might influence the allocation of more government resources to health sector programs. Three types of policies can expand health sector resources:

- ***Cost Recovery***: The implementation of cost recovery systems is an example of policy reform, which has important allocation consequences. Cost recovery in public facilities can increase the resources available for the public provision of health care, provided that these resources are retained and spent within the public health system. In addition, cost recovery policies, by requiring payments from consumers, can make facilities and providers more accountable to clients for quality and composition of services. Fee revenues, if invested at the local level, can lead to improvements in the quality of health care services, which should attract an increasing volume of patients. Properly implemented, cost recovery can result in increased overall spending on health and more rational utilization of these services. (For more information on cost recovery strategies and mechanisms, see the theme paper "Social Financing of the Demand for Health Services" in this compendium.)

- ***Private Sector Collaboration***: Government policy reforms could also encourage expansion and regulation of private sector health care services. By encouraging the private provision of hospital and other curative services to those who can pay, governments can redirect scarce public resources toward public health programs (Griffin, 1990). A shift of curative services to the private sector may also be a more efficient use of government administrative resources since it may be easier to stimulate a given quantity of private sector health care provision than to raise the funds in the public sector (user fees and taxes) to meet the same unit of need (Hoare and Mills, 1986). In addition, private providers may offer more efficient treatment than public providers.[1] (For more information on public-private sector collaboration in health care, see the theme paper "" in this compendium.)

- ***Social Financing***: Social financing arrangements, including health insurance and pre-payment plans such as health maintenance organizations (HMO's), help increase the financial resources available for health care by expanding the total amount of money available to support health services. In addition, most insurance plans cover their members for curative and inpatient health services, which could partially relieve governments from the burden of financing these more expensive services and free public resources for reallocation to preventive and primary health programs. (For more information on social financing strategies and mechanisms, see the theme paper "" in this compendium.)

SELECTED COUNTRY INITIATIVES

In Pakistan, HFS collaborated with the Federal Ministry of Health (FMOH) to increase health sector resources through the development of private managed-care insurance and the reorganization of public hospitals into autonomous units. The FMOH's vision for the financing of health services also included increasing the share of Gross Domestic Product (GDP) allocated to the health sector.

The development of private managed-care insurance has the potential to mobilize more resources for health and contribute to greater efficiency and quality of services. An HFS study (Ashir et al., 1993), which included a survey of employers, assessed the feasibility of developing a managed-care insurance market. The study identified the incentives needed to encourage the market expansion, and, through interviews with employers, ascertained the size of the potential managed-care market in Karachi and Islamabad. Results indicate that the demand for managed-care insurance exists in both cities, although it is greater in Karachi; almost all responding companies in both cities expressed an interest in participating in such a program. Based upon these results, HFS recommended that FMOH design and implement managed-care programs in these markets.

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[1] HFS is currently conducting a major applied research study in conjunction with its technical assistance to Senegal to measure the efficiencies of service provision in the public and private health care sectors. The first phase report (Bitran, 1992) provides a comprehensive review of studies and information on health service production efficiency from developed and developing countries. The findings from the study on "Costs and Utilization in Public Health Facilities" will be published in 1994.

Also in Pakistan, HFS helped to develop and build consensus on a plan to grant full autonomy of operation to government hospitals. This reorganization is intended to reduce dependence on government financing, thereby freeing health sector resources for other activities and programs, such as improving public health services for the urban and rural poor.

In Mozambique, with a per capita expenditure on health of approximately $0.33 and an estimated 60 percent of the population lacking adequate health coverage, resources must be sought to supplement the government's provision and financing of health care. One approach to increasing health care coverage is through an expansion of the private sector. HFS helped to assess the public and private health sectors, determining what would be necessary to encourage expansion of the fledgling private sector. The study (McInnes et al., 1993A) concluded that sufficient demand exists in most Mozambican cities to support private, for-profit medicine, but that government disincentives to the private sector must be eliminated before significant expansion will occur. Most importantly, the government could ensure that private providers have the same access to the drug import and distribution network as the public sector. In addition, blanket subsidies for drugs at public facilities contribute to the private sector's lack of competitiveness. If the government were to reduce the drug subsidy and increase token fees in public facilities (with appropriate fee exemption policies), there is the potential for doubling annual government cost recovery revenues, with only minimal impact on access to care, and simultaneously encouraging the growth of the private sector.

Although the private sector is not expected to extend health coverage to all Mozambicans, its growth is likely to reduce overall demand at public facilities, allowing the government to concentrate on improving quality and coverage for poorer Mozambicans.

In the Central African Republic (CAR), from 1984 to 1990, total government expenditures declined from 35 billion FCFA to about 28 billion FCFA. While government expenditures on health increased in nominal terms due to population growth and inflation, real per capita health expenditures declined 46 percent. To both increase public sector health resources and reduce overutilization at some facilities, an HFS team assisted the MOH to develop a national cost recovery strategy for public health facilities.

Implementing a successful cost recovery program requires reliable data on numerous aspects of health care supply and demand. To prepare for cost recovery implementation, the government and HFS staff and consultants conducted several studies:

- A national inventory of current cost recovery programs in public and private health facilities;
- A costing study of services at public hospitals;
- A report on the per patient cost of four cost-recovery options at the primary care level;
- A survey of private sector health benefits for employees and dependents, and
- A national willingness-to-pay household survey.

Results will be presented in a national health policy workshop in November 1993, where the first phase of national implementation of the resulting cost recovery strategy will be planned.

INTERVENTIONS TO INCREASE EFFECTIVENESS OF ALLOCATIONS WITHIN THE HEALTH SECTOR

Besides allocating a greater share of its budget to health or mobilizing private resources for health, a government can also achieve better health status in its population by allocating existing health resources to more cost-effective programs. Among the most cost-effective are preventive and PHC programs (World Bank, 1993, forthcoming).

Restructuring health sector priorities and programs to emphasize preventive and PHC can increase system efficiencies: fewer medical specialists are required, which reduces the cost of training and personnel salaries, and PHC interventions save resources through reduced use of expensive drugs and sophisticated equipment. Resulting savings enable the health system to provide services to a greater number of people. For this reason, HFS has assisted governments with targeting health resources to PHC programs and to disadvantaged populations.

In Kenya, over the past decade, the government has made important strategic decisions in health care financing. To continue this process, the government requested technical assistance to facilitate the development of a Health Sector Strategic Plan for the next decade. The plan (Government of Kenya, 1992) identified five topic areas with the greatest impact on health care financing - resource allocation, efficiency in service delivery, cost sharing, private sector involvement, and expansion of social financing. In terms of resource allocation within the health sector, the plan advocates the following changes: reorient public spending to emphasize public health and preventive services, and target public curative care resources to disadvantaged populations.

In Pakistan, one of the objectives of the FMOH is to provide sufficient government resources for health to ensure access to basic health services for lower socioeconomic groups, both urban and rural. HFS is working closely with the FMOH and other government, non-governmental organization (NGO), and private sector institutions to design a set of health financing reforms to allocate more FMOH resources to rural and primary services. To improve rural health care services, HFS is recommending the testing of alternative models of service delivery and financing of low cost, quality PHC services for poor, rural populations. One proposed method would contract with private providers on a fixed-price basis to operate rural health services in demarcated areas. At the end of a specified period of performance, services would be evaluated and a decision reached to either renew the contract or request proposals from new provider organizations (Yoder et al., forthcoming, 1993).

INTERVENTIONS TO IMPROVE THE MANAGEMENT OF HEALTH PROGRAMS

Effective management of health programs means that the health system, and finally the population, is getting the greatest benefit from each unit of resources allocated to the health sector. On the program level, improvements to management can achieve impressive results. Presently, many health centers and hospitals are underutilized because they do not meet population needs. This results from lack of supervision and training of personnel, and inadequate levels of drugs and supplies. Even the limited resources are often inefficiently allocated since current management and administrative systems fail to provide "feedback" either up or down the organizational hierarchy. Hence, individual facilities and the health system as a whole function at substandard levels.

There are many cases where studies have proven that greater efficiency in operations can result in great savings of health care resources. In a cost, efficiency, and quality of care study of the public Aybara Hospital in the Dominican Republic, the administration could only account for 12 percent of the contracted staff time (Lewis, 1987). A study of Malawi's principal public hospital suggested that 44 percent of the non-salary recurrent budget expenditure could be saved through simple management improvements. The same study concluded that improving the purchasing and distribution system for pharmaceuticals would save up to 40 percent of costs (Creese, 1990). In fact, improving the efficiency of current government programs may be a necessary precursor to attracting additional revenues through user fee or social financing programs in which patients have a choice of facilities (Gilson, 1988).

Improving resource management involves a wide variety of methods and mechanisms. Three key management issues HFS has identified through the course of its work are:

- Changing incentives for managers;
- Making better management tools available to managers, and
- Measuring the impact of diverse management problems.

CHANGING INCENTIVES FOR MANAGERS

Allocating resources to the health sector does not guarantee that they will be wisely managed to achieve the greatest impact on the population's health. Utilization of resources at the facility or program level is greatly influenced by incentives, intended or not. Highly subsidized drug prices, for example, tend to promote inefficient prescription practices, since the provider knows that the client will pay only a nominal fee. Alternatively, health care managers and providers on fixed (and generally very low) salaries, with civil service protection, have little motivation to increase the quality and efficiency with which they provide services. To change unproductive resource utilization such as this, policies are needed that create incentives for efficient use of resources.

In a multi-country, smaller applied research study (McInnes, 1993B), HFS examined the effects of retaining cost recovery revenues at local levels, as opposed to remitting them to the central health ministry or treasury. Research indicates that local retention at the facility level, with some discretion over how to allocate retained funds, increases the incentives for fee collection. In CAR and Swaziland, where government facilities do not retain fees, actual fee revenues as a percent of potential revenues (given price and exemption policies) were substantially lower at government facilities than at private, fee-retaining facilities. In Cameroon, local fee-retaining facilities experienced greater utilization than non-retaining facilities. In all cases, there were other factors which may have contributed to the results, such as price differences, possible perceived quality differences, and management practices. The report's conclusion, however, was that, in general, fee retention is likely to have a positive effect on quality, utilization, and the ability to recover costs.

As noted previously, the FMOH in Pakistan wants to grant greater autonomy to government hospitals, promote efficiency, and free resources for public health programs. The recommended plan calls for the conversion of the Pakistan Institute of Medical Sciences (PIMS) and the Federal Government Services Hospital (FGSH) to autonomous institutions. Part of the plan entails establishing monetary staff incentives for improved quality and efficiency of service delivery (Becker, 1993). The FMOH will monitor the results of these changes and revise the autonomy plan as the conversion proceeds.

Kenya's largest hospital, Kenyatta National Hospital (KNH), was granted parastatal status in the late 1980s. A major problem facing the new hospital management has been the lack of administrative control over staff physicians who divide their time between their KNH work and private practices. With the ultimate objective being to encourage the staff to spend more time in the hospital, KNH requested a feasibility study of the renovation and conversion of one wing of KNH to private use by staff physicians. KNH believes that by offering an in-house location where its physicians can operate their private practices, the hospital will benefit from greater physician availability, thus improving the efficiency of KNH's services. The study estimated the break-even rental fee for hospital space and services to be paid by the physicians admitting private patients.

MAKING BETTER MANAGEMENT TOOLS AVAILABLE TO MANAGERS

Once proper incentives are in place to encourage efficient management of resources, managers and providers require tools to achieve efficiency. In many countries, skills in financial management, human resources management, and logistics are lacking. One of the HFS Project's aims is to build capacity by transferring management technologies to health professionals.

In Egypt, as part of HFS's technical assistance to the Cost Recovery for Health Project (CRHP), an HFS team reviewed MOH accounting systems to develop uniform financial accounting practices for CRHP facilities. In addition, nine management training courses were offered and the "Illustrative Guide to Business Planning" was developed to assist hospital management in the development of comprehensive hospital operations plans, including which services to offer, projected revenue and expenditures, staffing needs, procurement, and marketing. More realistic plans are expected to save substantial resources by reducing wasteful practices and eliminating services that are in very low demand.

In Kenya, the MOH was concerned that frequent shortages of essential drugs and medical supplies at government health facilities would compromise the quality and availability of services, thereby undermining efforts to initiate a cost recovery system. An assessment of the pharmaceutical and medical supply distribution system identified areas for improvement (Quick and Ndemo, 1990). Although the basic organization of the supply distribution system appeared to be sound, HFS recommended steps to improve estimates of drug needs, improve inventory control, reduce waste and loss of supplies, and standardize hospital drug management practices. It was estimated that the improvements would lead to at least a 50 percent increase in available pharmaceutical supplies.

MEASURING THE SIZE AND RELEVANCE OF MANAGEMENT PROBLEMS

Frequently governments and MOHs are unsure where to begin in reforming management practices. Existence of numerous management problems requires that they be evaluated to identify where the greatest efficiency gains can be made for the least effort. HFS assessments, studies, and applied research help governments with the prioritization of such problems.

In Senegal, to assist with program budgeting and strategic financial planning, HFS worked with staff from the MOH and USAID/Dakar on the design of a study to measure costs, quality, and efficiency in a sample of MOH facilities at all levels. As mentioned earlier, this study will also measure and compare efficiency across MOH facilities and between public and private facilities at different levels in the system. Information about provider efficiency will be useful in designing policies to promote efficient use of resources in public facilities and regulate private sector service delivery.

In Belize, HFS conducted an evaluation of the efficiency and quality of staffing at government health facilities. HFS reviewed a sample of health facility records to assess the productivity of medical personnel at various locations throughout the country. Wide variations in physician productivity were found due to both geographic differences in demand for government physician services and a general shortage of nurses. The study findings did not support the MOH's thesis that Belize has a shortage of specialty and general physicians. Therefore, it was recommended that the government implement revised staff monitoring systems before changing current personnel allocation patterns, and create an MOH working group to explore ways of increasing the supply of nurses.

LESSONS LEARNED

The foregoing examples highlight some of the wide range of options that exist for improving the allocation and management of health resources in developing countries. At the macro level, governments can allocate a greater share of their total budget to health, develop cost-sharing mechanisms such as user fees and social financing schemes, and encourage the growth of the private sector. Within the health sector, MOHs can allocate to the most cost-effective programs and target the most disadvantaged populations. At the program and management level, a wide range of tools exist to increase efficiency, from simple accounting and supply management practices, to more complicated staff incentive and patient referral systems. HFS has drawn the following lessons from its multi-country work in its third year of operation:

- ***Increasing the Allocation of Resources to the Health Sector:*** Even relatively poor countries are not powerless to increase resources for the health sector, even if government allocations to health do not increase. They can tap the population's willingness to pay for quality services through cost recovery schemes, drug revolving funds, and prepaid health plans. Meanwhile, the growth of private sector services can reduce demand at government facilities, allowing more of the disadvantaged to be served and quality of care to be improved in general.
- ***Increasing the Effectiveness of Allocations within the Health Sector:*** As countries develop and medical/technological advances are made, there is a tendency to devote more resources to secondary and tertiary care. In most developing countries, however, the best resource allocation strategy is still to invest in preventive and PHC. Access to highly sophisticated and capital-intensive technologies can be obtained through arrangements with the private sector.

- ***Improving the Management of Health Programs:*** While MOHs and international organizations often favor increased health sector resources, frequently better management of existing resources can have as dramatic an impact on the effectiveness of the health delivery system as additional funding. Ineffective management systems and lack of knowledge are blamed for inefficient health facilities and programs when existing incentives (or disincentives) are often largely responsible for the problems. Research and analysis play two important roles in furthering effective allocation of health resources: (1) determining the means to improve resource allocation, and (2) demonstrating to decision-makers which policy options will most improve health services delivery.

FUTURE DIRECTIONS

HFS experience to date provides some indication of how developing country health systems are improving resource allocation and management. These examples have drawn attention to system shortcomings which undermine efficient resource allocation, and thus indicate areas for continued research into policies and tools to promote the judicious allocation and use of health resources. We suggest four areas for follow-on activities.

- ***Private and Public Sector Efficiency:*** Since government health facilities are often considered inefficient relative to private providers, an important topic for further research is productive efficiency of health services. The HFS major applied research (MAR) study cited earlier is examining this issue in Senegal. The MAR findings, anticipated in 1994, are expected to provide answers to the following questions: How do private and public health services differ in terms of efficiency of service delivery? Are private facilities more efficient at delivering all services or only a subset? Can public facilities apply private sector techniques without substantially affecting equity?

- ***The Role of the Private Sector in Health Care Delivery***: Given what is learned from the production efficiency research described earlier, another future focus for research will be the role of the private sector in increasing overall health sector resources and improving the quality and efficiency of service delivery. Research may indicate that certain health services are inherently more efficiently provided by the private sector, suggesting that they be transferred to the private sector. A larger role for the private sector in resource allocation and management implies a new role for the government, first to encourage private sector growth, and second to regulate its activities.

- ***Provider Incentives:*** More knowledge is needed about provider incentives to achieve greater efficiency, equity, and quality of service delivery. Provider incentives to investigate further include those monetary, such as bonuses, and non-monetary, such as recognition and training. Incentives to improve facility-wide management of resources might include revenue retention and management autonomy. To date, most developing country research in the area of incentives has been observational, with the drawback that confounding factors make it difficult to attribute changes to specific incentives. Future efforts, where possible, should involve controlled research into "experimental" facilities that have implemented the incentive and control facilities that have not. This type of research increases the potential for more definitive answers. The HFS MAR Phase One Paper (Bitran and Block, 1992) offers a framework and suggestions for further investigation of provider incentives issues.

- ***Information Dissemination***: An ongoing area of work which can help promote more widespread application of efficient resource allocation policies is information dissemination. There are numerous and varied examples of developing country research into, or application of, better resource allocation and management techniques. Many countries or regions within a country, however, are oblivious to the experiences of their neighbors. In the remaining two years of project operation, HFS will share results of successful resource allocation experiences with government policymakers and health providers through policy workshops, training, and report distribution to advocate increased attention to resource allocation and management issues at all levels of developing country health systems.

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PUBLIC-PRIVATE COLLABORATION

by
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This paper is the third produced by the Health Financing and Sustainability Project (HFS) relating to public-private collaboration in health care financing in developing countries. Significant interest in this topic has been generated as countries seek to increase private sector participation in the health sector. At issue is the identification of ways that the private sector can complement and, at times, relieve government in providing health care services (especially general curative services). In this way, governments could target their limited resources to social goods that are critically necessary for the health of the population (e.g., preventive care) and ensure the best utilization of its health care resources. Public-private collaboration intends to obtain insight into the roles of the public and private sectors in meeting national health goals.

This paper uses the same definition as in the past two years: the private sector encompasses both for-profit and not-for-profit providers and users of health services, ancillary goods, and services that are not directly part of the government-supported system. The private sector is composed of all fee-for-service health care providers (physicians in private practice, clinics, hospitals, pharmacies, drug sellers, and traditional healers), clinics, purchasing organizations (health maintenance organizations, insurers, other third-party payers), and firms providing support services. Health care consumers utilizing private sources of health care are also members of the private sector.

The public sector is composed of the government agencies and institutions responsible for the financing and/or provision of health care services. This sector is usually responsible for the allocation of funding within the health sector, establishment and evaluation of the standards of practice, collection and dissemination of information, training of health care personnel, social insurance, and direct provision of services.

Public-private collaboration examines the interaction between these two sectors. It is important to note that public-private interaction can be on a financing level or a provision of services level. Thus, a health system can publicly or privately finance private providers, or publicly or privately finance public providers.

HFS seeks to improve health financing systems to: increase resource availability for health (quantity); improve efficiency in the use of available resources; improve equity of access; and improve the quality of care. At issue is the question, in what way and how successfully does public-private collaboration achieve these objectives of quantity, efficiency, equity, and quality?

It must be recognized that each country begins its assessment of its role in meeting national health goals from a different starting point. Countries each have their own proportionate mix of public and private sectors. Options for developing countries must be viewed from their historical and cultural contexts. Choosing an appropriate role for the public and private sectors may mean an increase or decrease in private sector participation. For each country, there is a relative direction and movement towards public and private collaboration. Increased collaboration is good in and of itself, as it encourages less duplication of effort and fewer gaps in services.

This paper first reviews the complexity of public-private collaboration in the health sector within developing countries. Following this review is a discussion of the issues facing countries on both policy and technical levels. A summary of some HFS technical assistance and applied research activities that address these issues is then presented. The paper ends with lessons learned in HFS field research and technical assistance and proposed HFS research on this topic.

DEVELOPING COUNTRY CONTEXT

Private sector participation can be viewed in terms of its effects on the quantity, efficiency, equity, and quality of the health care system. The private sector, present in most countries where HFS has completed its work, appears to emphasize curative care at the expense of preventive care. This sector may be involved in the delivery, financing, and/or the management of health services. Large private sectors may already be in place, or may be just beginning. The status of the collaborative effort between governments and private providers is related to the historical role and level of success that the private sector has been able to play in a country.

Quantity

Public budgets have been strained to maintain the current level of government health services. In an environment of deteriorating revenues and economic conditions, countries have had to consider methods to increase private sector involvement in health care as a way to maintain the current level of services. Additional services may also be necessary to meet increased demand in countries where the population continues to grow. If the private sector is able to provide services previously government funded, the government funds could be made available for additional general health activities.

Increasing the quantity of services through increased private participation requires an environment that encourages private involvement. Laws and regulations may be too restrictive and inhibit the development of private providers. Many countries must alter their statutes and regulations to encourage private sector development. In so doing, the costs imposed by regulation must not negate the incentive of private participation.

Private sector development may also be limited by the availability of resources to finance start-up costs. The lack of purchasing power in a market can prohibit independent development of private sector providers. Since urban areas tend to be more affluent than rural areas, it is not surprising that the private sector health care markets in developing countries tend to be concentrated in urban areas. Given the meager financial resources of many rural areas, the goal of an extensive private sector may be unrealistic.

Efficiency

The private sector is believed to be more responsive to market demands. Competition in the marketplace may yield the provision of services in a more efficient manner. Importantly, the introduction of private providers into the marketplace is viewed as an impetus for the public providers to improve the level of their services. Charging fees may also increase the responsiveness of the public sector. Management improvements in the distribution and management of materials and supplies can ensure that health care resources are being spent wisely. In a competitive environment, duplicate services are more difficult to maintain.

Equity

There remain numerous areas where patients do not have ready access to health care. Allowing the private sector to participate in the provision of health care services can address this issue. Incentives can be created to encourage the direct provision of services in underserved areas by private providers, or public resources can be shifted to underserved areas with the reduction of funding to other areas.

Increased private participation in the health sector is often in the form of cost recovery for certain services. When individuals are asked to pay fees towards their health care services, a key government fear is the reduced access to health care by the poor. Thus, a method is needed that does not limit the access of indigent individuals while it introduces the beneficial efficiencies of private competition.

Quality

The quality of health care services varies according to the provider. The perception of quality by a patient may be quite different from the technical quality of the medical care delivered. Patients include in their quality perception non-medical issues like travel time, waiting time, and/or drug availability. Technical quality can be affected by training and availability of medical inputs. Private providers are often viewed as being of better quality than public providers. Public health services may also be improved by the need to compete with their private sector counterparts.

Government can also control the quality of health care services through various regulatory activities, such as controlling medical educational programs or creating quality of care standards for individual providers and organizations. Licensure of health care providers can limit the practice to providers meeting certain quality criteria. Facility accreditation programs are another method of ensuring and regulating the health sector.

The possibilities for collaboration are many. The government can transfer ownership of public health assets (complete privatization), purchase or contract for certain services, or encourage the development of competitive markets. To address concerns of possible abuse, government monitors these enterprises with its regulatory powers. Government may also subsidize the development costs of private initiatives or establish common funds to alleviate or lessen the effects of the market.

Zaire is an example of a country with extensive public-private collaboration. The private sector plays a key role in the provision and financing of health services. Zaire's health system is divided into geographical zones. Within each health zone, health care curative, preventive, and promotive services are placed under the direction of one physician. A health zone and individual health centers are operated with community participation. Financial support is decided in a joint meeting of the government and private voluntary organizations (PVOs). Health zones are designated as state zones or associated with a PVO. In PVO zones, the PVO provides financial and personnel/management resources, while the government provides salary and capital equipment support. PVOs are allowed to charge fees for services, pharmaceuticals, and supplies. State zones are funded entirely by the government.

THEME ISSUES

Public-private collaboration is by its essence an issue of policy. That is, it reflects the choice of each government as to the extent that it wishes to allow a private sector to participate in the health sector. In this fashion, each government needs to determine what it feels is the right mix of private sector activity, both in terms of services provision and financing. Also at issue is the options available to effectuate a public-private collaboration policy. A critical component of this determination is an assessment of opportunities available to private sector organizations and whether these organizations are being limited by government policies or regulations. It would also include an analysis of the financial resources available to the private sector. Even if there is the ability within the law for private activities, there may be restrictions to growth due to unmet capital, financial, or personnel needs.

To assist in the development of a government policy of public-private collaboration, a policy dialogue must be established, involving as many players as possible - Ministry of Health (MOH) personnel, other government ministries, private organizations, and providers or their professional associations. The dialogue would begin with the assessment of the extent of public and private participation in the current system, as well as the financing methods of each. A public-private approach for the health system would incorporate the national health goals of the government. Implementation of selected policies can be accomplished through pilot testing or new systems design. Each new initiative needs to monitored and evaluated before widening the approach. The dialogue between the public and private sectors would continue through each stage, and also serve to identify and eliminate duplication of services by private and public providers and expand services to underserved areas.

On a technical level, the government health sector has several tools to guide the public-private mix. The government can use the establishment of fees to meet the goal of public-private collaboration. Training in management skills can assist in meeting the efficiency goals of any initiative. Training of medical workers may help improve quality. Quality may also be enhanced by the government's licensure of individuals and facilities, accreditation programs to ensure a standard of quality care, and automation of health facilities. Quantity of services can be expanded by allowing direct service provision by private providers or organizations. Additional financial resources can be obtained through social financing methods. To balance equity concerns, direct subsidies to the poor can be installed. On the facility level, MOHs that deliver health care services must decide whether they want to provide all services, contract for certain services to increase efficiency, or improve management of current and retained operations to compete with the private sector, if there is one.

HFS RESPONSE TO THE ISSUES

HFS has completed a significant body of technical work on the issues of public-private collaboration. Given the broad definition of the private sector, HFS is usually working to enhance the development and performance of the private sector in its technical assistance and applied research. HFS work in the technical areas of cost recovery, social financing, and resource use, allocation, and management all serve to help governments understand and create the private sector necessary to enhance public-private collaborative efforts. The following text reviews the HFS response to public-private collaboration while maintaining the HFS framework of attempting to improve health financing systems through increased quantity and efficient use of resources, improved equity, and improved quality of care.

Quantity

HFS has used the public-private collaboration issue to address the quantity of health services. The usual strategy is to support governments in encouraging the development of the supply of private health care providers. Cost recovery systems also provide additional capacity within public systems by increasing revenues within the system for services provision.

In Belize, HFS discovered private sector growth was impeded by restrictive licensing practices, proximity of higher quality services across the border in Mexico, and a low proportion of the population covered by medical insurance. HFS recommended increased cost recovery levels through improved pricing, means testing, and billing and collection procedures.

By increasing the resources available to providers, government can attract the development of private providers. This has been the HFS approach in Haiti, where government contracting with private organizations was recommended as a mechanism to increase the availability of providers. This was also the focus of a study done in the Philippines, where government actions tended to affect the size and scope of the private sector. The enhancement and participation of the private sector was a key factor in HFS technical assistance to Kenya to develop a health sector strategic plan.

In Mozambique, a study of the health sector recommended the expansion of the private sector to meet the demand for health services. The study deduced that there was sufficient demand to support private medicine and the government should encourage its development. By doing so, a significant portion of government health resources could be redirected to provide services to others.

Efficiency

HFS has used public-private collaboration to address health sector efficiency in numerous countries. Private sector initiatives are helpful in creating the incentive to operate health services efficiently.

HFS has assisted the governments of Egypt and Pakistan in developing hospital autonomization programs to improve the delivery of health services in MOH facilities. In Egypt, HFS is helping health facilities to collect fees for their services, retain revenues generated for management use, and allow managers to make personnel management decisions. A similar effort is planned in Pakistan to restructure MOH hospitals so that they can make their own decisions regarding the use of staff and funds obtained through cost recovery.

In the Dominican Republic, HFS performed an analysis of PVOs to assess the extent, effectiveness, and efficiency with which they provide maternal and child health care and family planning services. HFS suggested strengthening the management capacity of PVOs and methods to improve PVO financial sustainability.

In Belize, an evaluation of the efficiency and quality of staffing in MOH facilities indicated that the improved use of public physicians could be obtained by addressing the shortage of nurses.

The efficiency of the public sector is the subject of a HFS major applied research study being conducted in Senegal by surveying the costs, utilization, and finances of 95 government facilities at varying levels of care. HFS intends to expand the survey to private facilities so that a comparison of the relative efficiency of each sector can be assessed. These results will provide insight on how to maximize the mix of public and private sectors.

Equity

Improved equity through public-private collaboration has been the subject of HFS work in a number of countries. Private sector resources can be used to increase services in underserved areas, or to allow the reallocation of public resources to these areas.

HFS studied the size and scope of the private sector to determine how the Government of Mozambique could develop it. HFS proposed that significant gains in health care access would be obtained by encouraging the development of private providers in urban areas and reallocating government funds to rural programs to improve rural access.

Insurance programs can increase the equity of health sector services provision. In Ecuador, HFS has proposed a scheme to the government to expand rural access by implementing health insurance through rural cooperatives.

In a Philippines study, HFS recommended that the government improve the private sector provision of health services by developing quality protocols and standards for improved management systems. In this fashion, the government could ensure the provision of services in isolated areas where many of the small private hospitals exist.

In Pakistan, HFS is working with the government to expand the rural health program through greater private participation. This would include contracting with private providers for the provision of services in rural areas.

Quality

HFS has addressed the quality of health services via public-private collaboration by the introduction of cost recovery strategies for services. Charging for services requires that the services be provided and drugs and supplies be available. The initiation of cost recovery in ways that improve quality is a key component of HFS' work in Belize, Egypt, Fiji, and Pakistan.

Additionally, the HFS long-term advisor in the Central African Republic (CAR) has worked with the government to develop a cost recovery strategy, including a cost analysis of the potential quality improvements that would accompany cost recovery.

In preparation for the testing of two modes of cost recovery in Niger, the improvement of the quality of services in the test areas is being addressed through the provision of pharmaceuticals by the World Bank. In this way, when the fees or tax are introduced, there will be an accompanying increase in the quality of care. Government facilities are currently unable to maintain a steady availability of drugs.

To ensure that public providers who shift to private financing by charging fees do so in a quality fashion, HFS has created a quality assurance program for hospitals in Egypt. One use of the new cost recovery revenues will be to monitor and maintain the quality of care through standards and equipment purchases. HFS also recommended the development of a national standards and accreditation council to improve the quality of care in Pakistan hospitals.

HFS is also studying public-private collaboration through its applied research agenda. Major applied research is being done regarding the development of private markets, differences between private and public efficiency, whether private sector-like incentives can improve public sector performance, and public-private interactions. Small applied research is under way regarding the privatization of the Chilean health care system and private health care benefits in the CAR.

LESSONS LEARNED

HFS' experience has led to the following observations regarding public-private collaboration:

- Collaboration between the two sectors is hindered by the lack of knowledge about private sector participants. In Ecuador, Mozambique, Kenya, and Pakistan, HFS found that a basic survey of the private sector is helpful to initiate any collaborative efforts. Governments are unaware of the extent of the private players' numbers and roles. Household surveys in Haiti, Peru, and elsewhere reveal the importance of the private sector to consumers.

- Even in situations where there is an awareness of the private sector, there may be an unwillingness for the public and private sector players to work together. This could be the result of entrenched historical beliefs. Private sector participants are naturally wary of government attempts to regulate and limit their operating decisions. For this reason, the private sector may be cool to innovative approaches, especially if government commitment to earlier policies has been arbitrary and inconsistent. In these situations, getting the two sectors together for group discussion and dialogue, as HFS has done in Pakistan, would be very beneficial. Feedback from the private sector should be an integral part of public policy development.
- In addition to the identification of the private sector, an understanding of whether it is growing or decreasing in size and scope would be of interest. Governments need to develop the capability to monitor and analyze private sector activities. More detailed study is being done by HFS to identify the conditions that spawn private sector involvement and growth. These studies will provide insight into private sector decision-making and aid the government in making its collaborative decisions.
- An observation consistent throughout all HFS countries is a predominance of government in financing and delivery of health care, with a more limited role for private sector, nongovernmental and for-profit providers. A larger role for the private sector is often believed to limit the ability of poorer members of society's access to health care. Because of equity concerns, privatization activities in financing have been limited to partial cost recovery and employer-mandated health insurance, and private sector activities in delivery have been limited to some contracting of services. MOHs have also provided subsidies to nongovernmental, nonprofit health care providers to help them provide services to underserved populations where MOH facilities do not exist.

Public vs. Private Sector Efficiency and Quality

In many countries, it is the PVOs that provide better quality health care than government, such as CDS in Haiti and Aga Khan Health Services in Pakistan. This quality is recognized by consumers and they are willing to pay fees that are higher than comparative services at public facilities. It should also be noted that although may governments claim to have a free system, the actual practice may be something quite different. Government and private representatives in Pakistan agreed that free care is a myth. Given the difficulties of public provision, many public systems require patients to come to the hospitals with their own drugs and supplies if they wish to be treated. Too often, "unofficial" charges must be paid to government personnel, or patients are diverted to private practices of government physicians. In general, private providers do not seem to have the same problems of providing basic goods. HFS is studying in Senegal the question of whether and to what extent private providers of care are more efficient than public providers. The results should help in identifying key features of efficiency for integration into public-private collaboration strategies.

Effect of Provider Reimbursement on Provider Incentives

One of the theories for the success of private health care providers is the effect of their different systems for paying or compensating personnel. Most public systems pay health care providers a salary and protect them from job loss by giving them civil service status. Thus, there is no incentive to see more patients or to deliver patient-demanded care. Salaried physicians are paid regardless of the number of patients they see. In a fee-for-service system, the provider can increase his or her earnings by seeing more patients. Additionally, reasonable quality of care, to the extent that patients can discern it, must be delivered or patients will not utilize the provider's services. The economics of fee-for-service systems also yield fears of the undertreatment of patients. In Peru and Bolivia, attempts are being made to pay providers via capitation, that is, a provider is responsible for a set number of patients for whom he or she receives an established sum of money whether the patient seeks care or not. Capitation has been shown in the U.S. and United Kingdom to limit the problem of overutilization, that is, the threat of any fee-for-service system.

Effect of Pluralism on Cost

In the United States, the competitive market has developed an extraordinary amount of pluralism in the health care system. There are many providers and a varied number of financing approaches. Pluralism, however, has also contributed to the rising costs of the American health care system. The vast array of different health benefits plans have yielded administrative costs associated with the identification, eligibility, and collection of the appropriate payments. A large number of providers, fee-for-service medicine, and low patient co-payments have increased health care demand to the point of overutilization. Developing countries need to prevent the introduction of competitive practices to avoid these same overutilization and cost problems.

Public-private collaboration provides a method to coordinate the participation of all health care providers and financing methods towards government health goals. HFS has been able to demonstrate, and will continue to develop, some valuable insights into the functioning of the public and private sectors towards the improvement of health financing systems.

FUTURE RESEARCH

Five HFS major applied research activities, planned for completion in the last two years of the project, will provide additional information on the subject of public-private collaboration. Three activities focus on issues related to private payment for public-sector provision of health services: (1) A literature review and research design for field work is under way on the topic of means testing in cost recovery. The study will outline what is known about the equity considerations of private financing of public provision. (2) Another literature review and research design is planned on the topic of quality of care improvements associated with cost recovery and the demand for health care. (3) An empirical study is under way on the relative efficiency of health care provision between the public and private sectors in Senegal. (4) An empirical study is under way on efficiency and equity considerations of two cost recovery systems in a pilot test in Niger. (5) A study of the determinants of the growth and development of the private sector in health care delivery in two African countries is planned.

HEALTH SERVICE COSTING

by
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and
Brad Barker

This paper focuses on the use of cost analysis in Health Financing and Sustainability (HFS) technical assistance and applied research activities during the past year. Costing has played an integral role in all four of the technical areas identified within the HFS mandate: cost recovery, public-private collaboration, resource allocation, and social financing of the demand for health services.

This theme paper begins with a discussion of the use of cost analysis as a policy and management tool, and defines both the advantages and limitations of cost analysis. It then presents descriptions of how the HFS Project has carried out cost analyses as part of its many activities in each of the four technical areas mentioned earlier. The paper concludes with an examination of advancements made in the use of costing as an analytic method, and a discussion of activities that will follow.

THE ROLE OF COST ANALYSIS

As outlined in the HFS theme papers from each of the two previous years, the costing of health services seeks to provide information to decision-makers that will ultimately result in improved practices and policies. Its utility spans the health sector as a whole. Costing exercises (and their concomitant results) can be of benefit to managers of individual health facilities, to program managers, as well as to policymakers both within and outside of the health sector. As facility managers attempt to improve the efficiency or quality of services provided, it is essential that there be a solid foundation of knowledge upon which to base decisions. Moreover, given limited resources available to governments, rational allocations can be made with good cost information. This would apply both within the health sector, as policymakers compare different types of programs (e.g., spending on malaria prevention activities versus spending on family planning activities), and outside of the health sector, as the costs and benefits of health programs or activities are compared with competing programs in the agriculture, education, or other sectors.

While the benefits from costing activities may be apparent, it remains an underutilized technique. In part, this may stem from lack of familiarity with the benefits that can be achieved, or with the methodologies to be used. At the same time, it results from the lack of information and systems that are required to produce cost estimates. In many cases, it is difficult or impossible to conduct a cost analysis when routine information about utilization, expenditures, or other factors are not collected or maintained. Often, the information systems required involve resources (human and financial) that are not available. Moreover, even if such systems do exist and are utilized, appropriate incentives are not provided to encourage the use of information generated. For example, despite the existence of cost information upon which to make resource allocation decisions, many choices are made on the basis of other factors, discouraging those who collect and analyze the data to continue their efforts.

Much of the efforts of the HFS Project have been directed toward promoting the use of costing methodologies, rather than at developing or implementing the methodologies themselves. It is only by making the users or actual beneficiaries aware of the advantages of costing that demand for its use will be created.

Although this paper will discuss the potential benefits from using costing as an analytical tool, it should also be recognized that there are limitations to what cost analysis can do. First, cost analysis represents an examination of only the supply side of the market, by measuring or analyzing what health care providers do. Clearly, the consumers (patients) play an important role in the health sector; this role, however, is not considered in cost analyses. Thus, cost analysis represents only one half of the picture.

Second, in many cases, cost analysis is hampered by the fact that many health facilities do not operate in competitive markets. Often, government-run health facilities represent the only available health care services, and the costs measured do not accurately reflect market prices of inputs (e.g., labor and drugs). Simultaneously, subsidized or donated goods and services may distort cost analyses, and skew attempts at rational decision-making.

Third, even when cost analysis can be done, it usually involves the calculation of average costs of particular services or products. While this is the most feasible type of information to collect, and while it is of use to decision-makers, it is not as useful as information on marginal costs. In an economic analysis, decisions should be based upon marginal costs and benefits rather than averages. Thus, for example, it would be more useful to know what the cost of seeing an additional outpatient would be, rather than knowing the average cost of current outpatients. That type of data, however, is difficult to obtain, particularly when only rudimentary information systems exist.

Fourth, in the health sector, most cost analysis is focused on specific services, for example, the cost per outpatient visit or per inpatient day. This results in large part from the way in which data are maintained at the facility level, and can usefully contribute to decisions about setting prices. Health sector decision-makers, however, might be more interested in understanding the cost of a specific outcome (e.g., the cost of preventing a death from malaria). While this would be valuable information, it is often infeasible due to existing data limitations.

Despite these limitations, there is a clear role for cost analysis to play in the decision-making process. It can contribute to better policies at all levels of the health system, and serve as a useful complement to other types of analyses for the health sector. The following sections describe some of the ways in which the HFS Project has promoted the use of costing as an important policy and management tool.

COST ANALYSIS AND COST RECOVERY POLICIES

Several years ago, the Government of the Central African Republic (GOCAR) agreed to pursue a policy of cost recovery within the health sector. To proceed with the implementation of such a policy, the GOCAR established a Health Finance Working Group (CES) within the Ministry of Public Health and Social Affairs, and enlisted the assistance of HFS to develop a long-term cost recovery strategy.

One aspect of that strategy involves the need to determine where to set prices. This year, HFS assisted the CES to apply cost analysis to the issue of drug prices. As reliable data on consumption and prices of drugs were not available, HFS developed an estimation method for the CAR. First, HFS facilitated the establishment of standard treatment protocols for the major disease groups representing over 80 percent of facility utilization. Once these protocols were established, the drug component of treatment cost per patient was determined, using both brand name and generic drugs. This analysis used a hypothetical facility whose utilization was proportional to the reported incidence of disease for the country as a whole. Thus, for example, if acute respiratory infections (ARI) represented 30 percent of all reported illnesses, 30 percent of this facility's patients would be treated for ARI.

The percentage of total utilization accounted for provided each particular disease group with a weighting, which was then multiplied by the average cost of drug treatment. The cumulative combination of all disease groups with their respective weightings indicated the cost of drug treatment for a typical health facility. Given a total cost of drugs and the objective of recovering all drug costs with drug revenues, a facility could set prices in a fashion so as to recover all drug costs.

The application of this particular costing method allowed the CAR to estimate drug costs and prices. These prices were then complemented by a household survey to assess the willingness and ability of the population to pay these, or higher, prices. This type of analysis also allowed facility managers to see how revenues from low-cost/high-demand treatments (e.g., malaria) could subsidize high-cost/low-demand interventions (e.g., tuberculosis).

In Niger, cost analysis is being utilized to help the government evaluate two different approaches to cost recovery for basic health services. A series of pilot tests is being implemented to compare the effects of a head tax system versus a user fee system. In this instance, HFS will estimate the costs of meeting demand under the two types of systems: one in which fee revenues are used to meet the costs of operations (or some portion thereof), and one in which an annual tax is levied and accompanied by a small co-payment upon use of services. The pilot tests will assess the feasibility of different types of cost recovery methods, in terms of logistics and management, and also determine the costs of different systems.

In Egypt, HFS has been working with the Cost Recovery for Health Project, which seeks to increase the resources available for the public health sector by implementing policy changes to convert selected facilities to a fee-for-service basis. A cost analysis has been carried out at the first facility undergoing this conversion process, Imbaba Hospital. Results of this analysis were combined with results from a household demand and utilization study, as well as from a survey of alternate providers, to provide guidance in setting prices for the facility under a fee-for-service basis. In addition, HFS developed a methodology for estimating sustainable levels of equipment purchases as a prelude to determining how much biomedical equipment is needed or desirable for facilities. This analysis takes into account the following factors: projected revenue (for a particular facility), percentage of revenue available for capital depreciation and building depreciation, expected years of service life of equipment, and the value of existing equipment. In this way, an analysis of costs will enable facility managers to better plan current purchases of equipment by taking into account future resource needs.

During the past year, HFS used cost analysis as a tool for guiding policy reform in cost recovery in Fiji. As part of an assessment of the existing cost recovery system, HFS carried out cost analyses at four hospitals and one health center. Unit costs were calculated for a variety of services, including inpatient days, outpatient visits, dental visits, and ancillary services. Because of very low levels of fees in relation to actual costs, the levels of cost recovery for the health sector are minimal. The Fijian Ministry of Health (MOH) is using the results of this cost analysis, in combination with information from a series of focus groups to be held next year, to evaluate policy reforms in health financing and a restructuring of fees for the health sector.

COST ANALYSIS AND PUBLIC/PRIVATE COLLABORATION

As part of its applied research agenda, HFS is using cost analysis in Senegal to explore the relative efficiencies of public and private health care providers. A common assertion is that the private sector provides services more efficiently, but the empirical basis of this is limited. HFS seeks to shed light on this issue by conducting a production efficiency study examining the revenues, costs, utilization, and quality of 95 public sector facilities throughout the country. These facilities will be compared with 40 private sector facilities throughout Senegal. Using econometric methods, HFS will analyze the facilities' cost of providing services, levels of utilization, as well as all key inputs (e.g., labor, drugs), while also assessing levels of quality of care. One important aspect of this cost analysis is that it will control for differences in scale, service mix, and quality, a function that has often been missing from previous analyses. This unique application of cost analysis can contribute to improved collaboration between the private and public sectors by identifying comparative advantages that each sector holds. The Government of Senegal will be provided with information to improve budgeting and resource allocation decisions, and individual facility managers will have information on their relative efficiencies, as well as suggested ways to improve service delivery.

As one component of the large activity assessing feasible policy options for financing health services in Pakistan, HFS is examining rural health financing models. In particular, HFS is focusing on the feasibility of having contractors assume responsibility for primary health care (PHC) services in rural areas in the Islamabad Capital Territory. Under this concept, contracts would be signed between governments and contractors, specifying which services would be provided to a designated population at a fixed price. Co-payments covering part of the cost would be agreed upon to discourage frivolous use of services and to generate revenues. As part of this effort, HFS is estimating the costs of operations of rural facilities. These data will be compared to government allocations and serve as the basis for determining contracts and establishing feasible cost recovery models.

COST ANALYSIS AND SOCIAL FINANCING

In Haiti, the Centers for Development and Health (CDS), a local private voluntary organization (PVO), provides a variety of health care and social services. Interested in establishing a health insurance program for the Bon Repos Hospital (HBR), a facility to be reopened, CDS sought the assistance of HFS in establishing premium rates. CDS wanted to ensure that revenues would exceed costs and allow the program to survive financially. Cost analysis was applied to this situation, in combination with projections of utilization, to determine appropriate premium levels.

The application of cost analysis to determine break-even premium prices is often hampered by the lack of actuarial data in the developing world. Because of this absence of information, it is usually necessary to analyze large treatment groups, rather than disease-specific probabilities and disease-specific treatment costs. In this case, the analysis was for a hospital-based program, and thus examined patients served (or bed-days) at different wards throughout the hospital (e.g., pediatrics, maternity, etc.).

Fixed and variable costs were estimated for each ward, including the outpatient clinic. Because the facility was not operating as an inpatient facility, this cost analysis was based on data from another hospital (Centre Hospitalier Ste. Catherine de Labouré [CHOSCAL]), also managed by CDS. Management and administrative costs were included in the analysis of costs, which was then combined with an estimate of expected utilization.

Utilization rates were projected from actual facility utilization, assuming that current rates would be an underestimate of eventual utilization given an insurance program. The increase in utilization with the introduction of insurance, or moral hazard, had to be accounted for to adequately prepare for the financial implications of greater facility use.

In this analysis, the premium rate was determined for a given membership by multiplying a ward-specific expected utilization rate (representing the actual utilization rate multiplied by a moral hazard "multiplier") by the ward-specific average cost. Management and marketing costs were added to the operating cost figures, as was the cost of providing preventive care and services. From this base, it was possible to determine what premium rate would allow CDS to break even for a given membership level.

As part of this exercise, HFS developed a computerized model to predict future utilization, costs, and revenues for a variety of population groups. This model provides a useful tool for managers to assess the number of clients to expect, the number of beds required to satisfy demand, and likely profits and losses. It also provides a means of sensitivity analysis by determining the effect on patient load and profit from changes in costs, prices, or utilization.

In Kenya, a series of policy reforms in health care financing have been taking place over the past several years as part of a program of non-project assistance. Some of the policy reforms supported under the program involve the National Hospital Insurance Fund (NHIF), a social insurance program mandatory for formal sector workers with monthly premiums withheld from wages. The NHIF has approximately one million members and five million beneficiaries, and covers beneficiaries for up to 180 days of private hospital costs. Depending on specific amenities and hospitals selected, NHIF covers part or all of patients' total bills. Policy reforms envisioned for NHIF include introducing progressive premium rates, introducing modest employer contributions, and increasing reimbursement levels to registered providers to bring them in line with actual costs.

HFS provided technical assistance to the MOH and NHIF in conducting a unit cost analysis of the operations of NHIF-registered hospitals. The analysis involved the development and testing of approaches to unit costing and quality evaluation at 14 hospitals reimbursed by the NHIF. The goal of this exercise was to develop a coherent approach to using the cost and quality information to set new reimbursement rates that would be based on a standard cost or quality, and to encourage the various facilities to improve the quality of care and enhance efficiency.

As part of the unit costing methodology, HFS determined the actual unit cost of different services at individual facilities, including inpatient ward days, lab tests, radiology exams, pharmacy prescriptions, theatre operations, physician days/visits, physiotherapy treatments, and outpatient visits. This analysis was based on actual volume and cost data for 1991, adjusted for inflation and accounting for capital costs. The costing methodology was combined with a quality evaluation methodology, which differentiated the levels of quality available at various facilities through the use of objective and replicable criteria. By using a simple checklist, this methodology measured quality-related hospital characteristics in the areas of staffing, service availability, quality process, and patient satisfaction.

Based on the cost and quality results from 14 facilities, HFS identified a group of hospitals providing "good" quality at a "reasonable" cost to serve as a standard upon which to base a new reimbursement schedule. These were seen as more reasonable choices than only those facilities with the highest quality and highest cost. On the basis of these data, HFS developed a complete reimbursement schedule, increasing or decreasing rates for individual facilities depending on their quality score in comparison with the established standard. HFS found that the two methodologies were well-suited to determining actual costs and quality, and that the approach had significant potential for rationalizing the reimbursement mechanism for the NHIF. As part of this undertaking, HFS developed guides for both the unit costing and quality evaluation methodologies, including detailed instructions for application at additional facilities in Kenya or elsewhere.

HFS is also providing technical assistance to the Government of Pakistan in developing policy options for financing health services. This activity comprises four major areas of analysis: private insurance, autonomy for government hospitals, quality assurance, and rural health delivery. In the area of insurance, HFS studied the feasibility of developing private programs, based on the principles of managed care, for employees of large organizations in Islamabad and Karachi. Thus far, HFS has met with representative physicians, hospital administrators, insurers, and employers to gauge how U.S. models of managed care might be adapted to Pakistani circumstances, if at all, and whether individuals and institutions would be willing to participate in such plans. The conclusion reached was that managed care is feasible, particularly for Karachi, with its competitive labor and hospital markets and large number of well-paid employees. Further testing of the feasibility of promoting managed care is required, including pricing and market testing a managed group hospital plan. This step requires the application of cost analysis as a benefits package is developed and priced, as premiums are established, and as utilization and costs are monitored once the plan begins operation. Again, in this instance, cost analysis provides an effective complement to other types of analyses required for testing or implementing new health financing systems.

COST ANALYSIS AND RESOURCE ALLOCATION

As part of its applied research program, HFS developed a Health Finance Policy Simulation Model, a policy planning tool which enables decision-makers or planners to examine the effects of policy changes in the health sector. The model measures volumes of resource flows within the health sector and the cost and financial implications of those flows for both suppliers and consumers. The model can be used to analyze the effects of various policy reforms and to predict the net effects on sector solvency, service utilization, human resource requirements, or access to care. Policy changes can be analyzed individually or in combination with others, so as to better understand the interrelationships among factors affecting health sector productivity or outcomes.

One of the key areas in which this model can be effectively applied is that of resource allocation. The simulation program will demonstrate the effects of shifting resources within the health sector (e.g., from curative to preventive care, or from labor costs to pharmaceutical costs) or from increasing the overall level of resources available. Alternatively, the model will evaluate the costs of expanding the health system, whether from increasing government subsidies of privately-provided services, adding to the capital stock, or hiring additional medical personnel. The model can also demonstrate the long-term investment consequences of decisions about operating costs.

This year, the model was field-tested in Indonesia to determine whether the requisite data exist, reliability of the results, and usefulness of the model to policymakers. The primary conclusion of the field test was that the model did provide a useful tool to policymakers and that it would also be a valuable teaching tool for health finance issues. HFS found that most (although not all) of the data required for the model existed in Indonesia; nevertheless, a fair degree of data manipulation was still required. This is likely to be a consideration in other countries as well, since records are rarely maintained in a format allowing ease of consolidation of financial and utilization statistics. Despite this difficulty, Department of Health officials in Indonesia believed that the model's forecasts were realistic projections of current conditions. Moreover, the model is constructed so that even if full information is not available, individual components of the model will still be operational.

Another issue involved in the allocation of resources pertains to distribution of budgets among different populations, whether divided by geographic location (urban, rural), sex (female, male), or age (children, adults, elderly). In Uruguay, HFS has conducted an applied research activity on the effects of population aging on the financing of health services. This study was done in collaboration with the U.S. Bureau of the Census and the Pan American Health Organization. Data were obtained from one health organization, the Centro de Asistencia del Sindicato Medico del Uruguay (CASMU), with the objectives of: identifying expected changes in the age and sex composition of the CASMU membership over the next two decades; estimating the effects of these changes on the overall demand for hospital care; estimating the effects of altered epidemiological patterns among the membership on health care costs; and examining the implications of the aforementioned results for continued financing of health care services provided by CASMU.

Cost analysis plays a central role in this research, in conjunction with demographic and epidemiological projections. HFS estimated the current costs of hospitalization for the CASMU membership for three categories of illnesses: all diagnoses, neoplasms, and cerebro- and cardiovascular disease. These costs were determined from CASMU budgetary data for three fiscal years and allocated across utilization statistics for the organization as a whole. In assessing the likely costs of providing care to CASMU membership for the next two decades, several assumptions regarding costs were required. These included assumptions that factors such as the cost (absolute and relative) of production inputs, level of competition, and technology would remain constant. While these assumptions might be overly simplistic, they were required due to the limitations of this study. Nevertheless, even holding these factors constant, the data demonstrate the increase in total CASMU costs that can be expected from an aging population. Depending on the assumptions made regarding the pace of aging, the data from CASMU forecast an increase in costs for the organization as a whole of approximately three percent over the next decade, and of half of that amount for the following decade.

Another applied research activity involving the use of cost analysis is examining the economic impact of malaria in Kenya and Nigeria. This study, being conducted in conjunction with Agency for International Development's (AID) Vector Biology and Control (VBC) Project and the Centers for Disease Control (CDC), is utilizing a relatively innovative methodology for estimating the costs of the disease. HFS is concentrating on estimating the annual lost productivity from morbidity of adults suffering malaria attacks, and from adults taking care of infants and children suffering malaria attacks. Productivity loss will be measured in the agricultural, industrial, and service sectors. The HFS methodology attempts to compensate for weak existing data on productivity loss, and concentrates on focus group and individual interviews in urban and rural locations. Focus groups were chosen over household surveys because they represent a more rapid, less expensive methodology that is potentially more easily replicable. Information to be gathered through these methods includes factors such as the degree of absenteeism from work due to malaria morbidity, the degree of lost production from sick workers who continue to work, the extent to which there are substitutions for sick workers by surplus workers or other family members, and the incidence of malaria attacks, by season.

The results of this applied research study will contribute to better decisions about allocating resources for malaria interventions, and will also represent the field-testing of a rapid assessment technique and spreadsheet tool designed for the estimation of costs of a disease.

METHODOLOGICAL ADVANCEMENTS

The ways in which cost analysis can be carried out are many and varied, and can range from sophisticated econometric techniques to simple accounting methods. In applications of cost analysis to health sectors in developing countries, a frequent problem is the lack of good, solid data. Analysts or researchers are thus often called upon to be creative in their approaches, and/or to make heroic (but reasonable) assumptions about the data.

HFS has approached cost analysis in its technical assistance and applied research work with the aim of promoting its use through increasing its effectiveness and attractiveness to decision-makers. This includes both training host country counterparts to conduct cost analyses and developing methodologies that are easily replicable and that can function despite data deficiencies.

As described earlier, HFS is using econometric techniques to measure costs, quality, and efficiency and productivity in public and private sector health facilities in Senegal. At the other end of the spectrum, a simple accounting-based method of determining unit costs was used in Fiji to provide information to policymakers interested in revamping the fee structure for publicly-provided health care. While these methodologies are not particularly groundbreaking, their successful application to developing country health sectors represents advances in establishing the role cost analysis can play. In Senegal, in particular, this study represents the first such large-scale activity of this kind in a developing country setting.

Other applications of cost analysis carried out by HFS do provide new approaches. The combination of focus groups and review of work and school records in Kenya and Nigeria as part of the malaria study will take advantage of already-existing data while filling in gaps in knowledge. In Egypt, the development of a method to determine the sustainable level of medical equipment purchases will be useful to decision-makers at the sectoral levels as well as at individual facilities. Similarly, a cost model developed for a PVO hospital in Haiti, which uses cost data in conjunction with utilization information, provides information upon which to base marketing and pricing decisions. In previous years, HFS has also developed a methodology to estimate the cost of delivering preventive and PHC services in a public health system operating at full capacity. These approaches all represent efforts by HFS to encourage the use of cost analysis to address health sector issues in developing countries, as well as efforts to adapt standard analytical methods to situations with less than perfect information.

SUMMARY

This paper has examined diverse applications of cost analysis throughout activities undertaken by HFS during the past year. While not an exhaustive list of activities, this paper does provide a flavor of how cost analysis has been and can be used. Obviously, it has relevance in each of the four technical areas in which HFS works: cost recovery, public/private collaboration, social financing, and resource allocation. Better cost information will lead to better decisions and policies in each of these realms.

HFS expects to continue utilizing cost analysis as an integral part of all of its activities in the coming years. It is clear that policymakers in HFS countries have come to appreciate and rely upon the information provided by such exercises. It is also important, however, to realize that cost information cannot and should not be examined in a vacuum. Rather, cost analysis is an essential complement to other types of analyses when formulating health financing policies. As indicated in this paper, virtually all cost analyses carried out by HFS have been combined with other analytical approaches, such as demand studies, measures of quality, or demographic projections. The synergistic benefits from pairing cost analyses with other studies include a fuller understanding of the workings of health systems. Ultimately, of course, it is hoped that these analyses will lead to the elaboration of improved policies, to enhanced services, and thus to better health.

SOCIAL FINANCING OF THE DEMAND FOR HEALTH SERVICES

by
Keith McInnes

This paper defines social financing and discusses three issues which have been the focus of Health Financing and Sustainability (HFS) applied research and technical assistance: expanding health insurance coverage to hard-to-reach groups, the government's role as promoter and regulator of insurance programs, and containing health care costs as insurance coverage expands. The three issues are a subset of a larger number of topics identified in Year One and Two Theme Papers.

The organization of this theme paper is as follows. First, social financing is defined, followed by a discussion of three issues that are key to improving social financing schemes in developing countries. Examples of HFS country experience relating to the issues are also provided. Next, lessons are drawn from HFS experience and research. Finally, social financing issues that deserve more attention in the future are described.

For many people in developing and developed countries, health care for serious illness is financially unattainable. To reduce the financial barrier to health care services, communities, governments, and businesses have developed financing mechanisms to spread financial risk. The common feature of these arrangements, called social financing, is that large numbers of people make modest contributions to a pool of money which pays for the few events of expensive health care for group members (these schemes are also called group insurance). The definition includes (A) private insurance with some form of pre-payment and risk pooling, and (B) public sector programs at least partially financed with general revenues or earmarked taxes that establish benefits for eligible populations. Examples of social financing, or risk pooling, programs include payroll taxes earmarked for health care, community health funds, employment-based insurance, and health components within social security systems. All involve the collective pooling of resources, usually through the payment of premiums, to protect the individual in the event of financial loss due to an illness or accident.

SOCIAL FINANCING ISSUES

Year One and Two Theme Papers identified a wide range of social financing issues which developing countries faced in their quest for better health care coverage. Included, for example, were inefficiencies created by insurance, constraints to community-based social financing, and how to identify potential insurance grouping mechanisms.[2] These previous theme papers reviewed country experiences in several Latin American countries, the Philippines, and Zaire.

[2] For a complete list of issues, refer to the HFS social financing theme papers for years one and two.

In year three, HFS has focused on three issues highlighted in theme papers from previous years: (A) expanding health insurance coverage to hard-to-reach groups, (B) the role of government in organizing social insurance programs and regulating private insurance, and (C) controlling health care costs when insurance exists. These issues are discussed first in general terms and then in relation to HFS work in specific countries.

EXPANDING HEALTH INSURANCE COVERAGE

In countries where health insurance schemes exist, members tend to be the more affluent and educated urban dwellers, despite the large size of poor and rural populations. Countries trying to expand coverage to poor and rural populations encounter a number of barriers, including low and irregular incomes, dispersed populations, lack of traditional insurance groupings through employers, and a poor health infrastructure with few modern providers.

Experience has shown that there are ways to overcome, or at least minimize, these barriers. They include:

- ***Cost Containment***: Keep costs, and therefore premiums, low by relying on general practitioners and auxiliary health workers as providers (addresses low and irregular incomes).
- ***Innovative Insurance Groupings***: Enroll members through rural cooperatives, agricultural firms, producer associations, and traditional community groups. Encourage existing organizations to allow non-members to purchase insurance through them[3]. Some groups can be formed specifically for insurance reasons (addresses dispersed populations and lack of traditional insurance groupings).
- Pay attention to perceived quality of care;
- Explore nontraditional (and smaller) risk groups, such as associations, and
- Carefully negotiate conditions for benefits eligibility so that major concerns of the insured group are addressed.

In Haiti, as part of the assessment of a prepaid health plan intended for working urban poor, HFS conducted interviews with employers and other organizations that could provide insurance grouping mechanisms. Numerous companies expressed interest in the plan, called Health 2000. The findings (Barker, et al., 1991):

- Employers are convinced of the advantages of offering insurance to employees. They believe it enhances the company"s image, improves employee relations, and promotes employee health, which decreases absenteeism.
- Easily managed pre-payment schemes were preferred over reimbursement-type indemnity[4] insurance plans.

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[3] In the U.S., this has been successful among federal employees, where non-union members have access to the union's health plan by paying a fee (Currier, K., 1992, p. 2).

[4] Indemnity insurance entails payment amounts fixed in advance (e.g., $500 for a broken leg); generally the payments bear no necessary relation to the provider's bill.

- Benefits packages covering relatively more services were preferred, despite their higher price.
- Employers were willing to share in premium payments with employees.
- Quality and reliability of provider services appears to be more important than distance and price in determining whether to purchase an insurance program.
- Alternative grouping mechanisms that showed promise are domestic workers, industrial workers, the army, Chamber of Commerce, Association of Agricultural Producers, and Association of Private and Public Transporters.

These insights can guide the design of Health 2000 so that it is affordable to the poor and financially viable.

An HFS MAR activity also sought to identify means to expand social insurance. The resulting document, "Extending Coverage and Benefits of Social Financing Systems in Developing countries: A Review of Concepts and Experience," (La Forgia and Griffin, 1992) examined constraints to expanding social financing coverage and benefits, and discussed promising strategies to overcome them. Four strategies are presented here:

- ***Subsidized Extension of Statutory Insurance***[5]: In Mexico, Ecuador, Panama, and Costa Rica, statutory health insurance was extended to previously uninsured populations. In some instances, existing social security systems were used. In other cases, parallel health delivery systems were created and linked to the financing provided by social security.
- ***Innovative Public-Private Collaboration***: Rural risk-sharing schemes have been developed in Zaire, Guinea Bissau, and Thailand. Their popularity is attributed to affordable premiums, quality improvements, and traditional community values which encourage social solidarity. Key to their success is considerable consumer and community education.
- ***Expanding Population Coverage with Restrictions on Benefits and Provider Choice***: A number of schemes have increased population coverage by limiting the medical procedures included in the extended coverage. Low cost, non-comprehensive packages have been developed, which have the advantage of being affordable to previously uninsured populations. Statutory social security schemes in Mexico and Ecuador extended primary and preventive care to rural areas at a fraction of the cost of standard, more comprehensive urban coverage. In Ecuador, social security was able to enroll traditionally elusive groups, such as small farmers, in its member network.
- ***Mandating Systemwide Change***: Korea and Chile have made substantial design changes in their insurance systems. In Korea, the state-mandated approach has reduced inequities of the completely free market, while conserving the system"s overall private and decentralized features. The government is aiming for universal coverage through sickness

[5] Statutory insurance refers to insurance programs, such as social security, which are mandated and defined by laws and statutes.

funds[6], special schemes for different sectors of the salaried work force, and government subsidies targeted to the destitute and medically indigent. Chilean social insurance institutions have undergone a radical privatization, with the government promoting a competitive marketplace of providers and insurers. Since their creation in the early 1980s, Chile"s private, health maintenance organization (HMO)-like *Institutos de Salud Previsional*, or Provisional Health Institutes (ISAPREs) have grown to 34 in number, covering 1.6 million affiliates (16 percent of the population). The majority of the population, however, still relies on the government for care.

THE ROLE OF GOVERNMENT IN ORGANIZING AND REGULATING SOCIAL INSURANCE PROGRAMS

This section describes two different roles played by governments in relation to social financing. The first is that of organizer of the system, and the second is that of regulator.

The government as organizer and promoter of insurance encounters numerous issues and pitfalls. Three issues from HFS experience are noteworthy: deciding what kind of system to organize, understanding the affects of adverse selection and moral hazard, and avoiding problems related to mandating excessive benefits.

Governments must decide what kind of insurance system to promote, from a system directly managed by the government, to a highly regulated private insurance market, to a private insurance system largely shaped by market forces. This paper will not attempt to discuss the merits and drawbacks of each system, but a balance must be struck between a highly regulated system and a relatively free market system. The former requires extensive government involvement and may create inefficiencies, while the latter reduces direct government intervention but may not adequately provide insurance for poor and dispersed populations.

Two concepts that governments should understand before embarking on a major expansion of government or private insurance programs are adverse selection and moral hazard. Adverse selection is the tendency of those who have a higher than average likelihood of becoming ill to enroll in insurance programs. Adverse selection reduces the positive effect of risk pooling and increases the cost of insurance for all members. Mandating that all or most employees (the majority of whom tend to be relatively healthy) be enrolled in a social financing program reduces adverse selection. The disadvantage of simply enrolling all employees is that the poorest are frequently excluded, since they often lack regular employment.

Moral hazard is the phenomenon of people increasing their use of health care services after becoming insured. This is due to the price of health care being substantially reduced or free for the insured. A result of greater utilization is increased costs in the health care system (Abou-Sayf, F. 1992).

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[6] Sickness funds are funds paid into by employers and employees, which reimburse employees for health care costs and lost wages due to illness or accident. Generally organized on the basis of profession or industry (e.g., miners, auto workers, etc.), sickness funds often entail social solidarity: for any given fund, all workers contribute the same amount of money, regardless of personal characteristics (e.g., age, gender, etc.) and frequency of claims.

This may be somewhat mitigated by charging co-payments or deductibles to reduce frivolous use. Without an appreciation for adverse selection and moral hazard, and steps taken to reduce their effects, governments may see a rapid rise in health care costs after the initiation, or expansion, of health insurance programs.

Finally, in the enthusiasm to ensure access to hospital and other health care through insurance, there is a danger of governments mandating too many benefits. This is undesirable for at least two reasons: it increases the minimum cost of insurance and leads to cost inflation. Insurance plans that cover such treatments as thermal baths increase total costs without providing a substantial health benefit to society (Abou-Sayf, F., 1992).

Mandatory benefits should be kept to a minimum and designed to:

- ***Encourage preventive services***, which keep the population healthy and avoid more severe and expensive episodes of illness in the future, and
- ***Protect against catastrophic costs***, which is one of the original reasons for the creation of health insurance. Financing is provided for unexpected and serious accidents or illnesses which, in the absence of insurance, would cause great financial hardship for an individual or family.

Whether insurance is provided by the government, a para-statal, or private entities, there is an important role for the government as regulator and monitor.

In a health system with many private insurers, regulations may be required to promote fair competition and encourage inclusion of disadvantaged groups in insurance programs. Regulations can reduce "cream-skimming," where insurers try to enroll the healthiest segment of a population as a means of reducing the number of claims it will have to pay. Government may need to monitor which population subgroups are covered, quality of care, and consumer satisfaction with insurance plans. Additionally, government may decide to subsidize insurance schemes that attempt to cover hard-to-reach, disadvantaged populations, such as rural farmers and the urban poor.

Where private insurance is allowed for the first time, there is a tendency for government to overregulate. Excessive and prescriptive regulations may discourage the competition which governments hope to encourage. When governments set premiums, dues, and late charges, price competition is largely eliminated (Abou-Sayf, F., 1992).

Country Experience

In Pakistan, HFS was asked to design a monitoring system for the emerging private insurance market. The system, to be operated by federal and provincial MOHs, will collect data on the number and types of insurers in the market, products offered, types and numbers of providers involved, groups covered, prices, and costs.

In Morocco, HFS participated in a conference on the new health insurance law and recommended that overutilization could be addressed by co-payments, utilization controls (as occur in HMOs in the U.S.), and physician-capitated reimbursement (Currier, K., 1992). HFS suggested that quality of care be monitored as the health system starts to create competitive and more price-sensitive incentives. This

would involve collecting data, using common definitions, and evaluating resource utilization and health outcomes. This can be accomplished on an aggregate level (e.g., mortality rates, procedure volumes), or on a specific patient level, where medical record reviews are completed (Currier, K., 1992).

CONTROLLING COST ESCALATION

To reduce the overutilization of services, incentives and disincentives can be introduced, which modify the behavior of health care consumers and providers. On the consumer side, the most common mechanisms are co-payments and deductibles. Co-payments are payments made by patients at the time of care, which, although they are generally only a fraction of the total cost of treatment, nevertheless discourage unnecessary use of services. Deductibles are predetermined amounts which must be paid by an insured person before the insurance plan begins to pay benefits. Similar to co-payments, deductibles reduce the frivolous use of care because of the out-of-pocket costs the insured person incurs. With deductibles and co-payments, insurers must guard against discouraging use that is truly needed; illnesses which are left untreated may lead to more acute illness and greater treatment costs later on.

On the provider side, mechanisms are needed to prevent physicians and nurses from providing more care, tests, and drugs than are necessary. Authorization procedures and utilization reviews are designed to avoid the unnecessary use of expensive treatments by reviewing provider treatment patterns. In some instances, a provider must obtain permission (authorization procedures) from a review board to perform certain procedures on individual patients. Under a utilization review, a provider"s treatment patterns are examined by a medical board to see whether he or she is ordering or performing more costly or frequent procedures than the norm. Different provider reimbursement mechanisms can also help control costs. Diagnostic-related groups (DRGs), capitated payment plans, and HMO-type managed care are all responses to growing health care costs.

Country Experience

In Haiti, an HFS team assessed the opportunities for a rehabilitated Bon Repos Hospital (HBR) to serve poor communities in Port au Prince while achieving a high level of financial autonomy. Simultaneously, the team evaluated the Health 2000 program associated with HBR, as described earlier.

For a modest monthly premium (HFS recommended $3.50 per month) shared by employer and employee, an employee receives services free of charge, or with a modest co-payment. HFS suggested the following modifications to Health 2000 prices and benefits to control costs (Barker, B., 1991):

- Impose deductibles ranging from $2.00 to $25.00;
- Eliminate the life insurance component;
- Exclude medical services that cannot be provided at HBR or affiliated institutions;
- Reduce adverse selection by establishing minimum size for groups admitted and minimum percentage of employees enrolling within a firm, and
- Do not provide individual coverage insurance.

While these measures are designed to prevent excess utilization and contain costs, they also prevent the decapitalization of the insurance program, thereby enhancing its sustainability.

LESSONS LEARNED

This paper has tried to shed light on the process of expanding the coverage of social financing programs. It has discussed successful examples of expansion, the role of the government in promoting and regulating insurance, and cost containment.

Three lessons stand out from HFS experience in year three:

- The importance of quality of care;
- The importance of designing attractive and affordable benefits packages, and
- The feasibility of expanding insurance coverage through innovative grouping mechanisms.

The quality of care at member facilities has a direct effect on the attractiveness of the insurance program and helps ensure that members will avail of services when they are required. Like quality of care, the package of benefits and covered services and its affordability are key to attracting and keeping affiliated members. Finally, reaching the most disadvantaged segments of the population requires innovative grouping mechanisms, as was seen in Egypt. Associations, agricultural cooperatives, and groups of farmers are all potentially insurable, though in some cases subsidies may be required to make plans affordable.

A negative side-effect of expanding insurance is increased costs as members increase their utilization of health care services. While this point has already been made, it is important to emphasize that cost containment is not an end in itself; rather, it facilitates a more equitable distribution of health care by maintaining the affordability of health services while improving sustainability by reducing overutilization and the ensuing decapitalization of insurance schemes.

FUTURE DIRECTIONS

As insurance programs become more widespread in developing countries, their success will partially depend on marketing and public information campaigns to educate consumers about the advantages of health insurance and the strengths of particular schemes. As a first step toward marketing and public education, surveys, focus groups, and other market research will help insurers understand what employees and employers desire in terms of health coverage, and what they can afford. HFS" work in Egypt and Haiti has demonstrated that insurance products are likely to be more sustainable and responsive to consumer wishes if population studies are conducted, employer and employee health care needs are assessed, and insurance products are marketed to targeted groups.

In year four, HFS will conduct market research in Kenya to explore ways to extend insurance to uncovered rural and urban groups (Wang"ombe, J., 1992). Surveys of households, health providers, and insurance providers will be used to gather data on the types of illnesses people most wish to insure against, the determinants of demand for insurance, and the current structure of rural and urban insurance markets. This research will help determine demand and ability to pay, size of potential pool, and grouping arrangements. HFS will also conduct field research on social financing as part of its MAR program. Among potential sites for such research is Niger, where a pilot test has been proposed to compare the operation and effects of two rural schemes - one a tax-based system with co-payments, the other a fee-for-service system. HFS, in collaboration with the Government of Niger, plans to compare each system"s affects on revenue generation, access, equity, quality improvements, and consumer preference.

GLOSSARY OF SELECTED SOCIAL FINANCING AND INSURANCE-RELATED TERMS[7]

Adverse Selection
Those with the highest probability of requiring health care are the first to buy health insurance.

Capitation
Providers are regularly paid a stipulated fee per protected person for whom they provide services as needed during a defined period of time (e.g., quarter, year).

Co-insurance
Payment of a fixed percentage of the charge of all or a defined range of services (as well as amounts above the agreed fees in the schedule).

Co-payment
Payment of a fixed flat-rate fee for every kind of a defined list of services.

Deductible
A fixed amount of money which must be paid by an insured beneficiary before the insurance scheme begins to pay benefits. Used to prevent unnecessary utilization of insurance benefits (see "moral hazard").

Diagnostic-Related Groups (DRG)
Categories of medical diagnoses based on norms of resource usage. These categories serve as the basis for hospital and physician reimbursement from government insurance programs such as Medicare and Medicaid in the U.S.

Grouping Mechanism
An affiliation of individuals, such as a worker"s union, commercial company, or rural cooperative, which serves as a convenient way to enroll large groups of people in insurance programs.

Health Maintenance Organization (HMO)
A prepaid health care plan which combines the roles of health care provider and insurer in one organization. For an annual fee, members have access to provider services at no cost or for a small co-payment. HMOs try to contain costs and remain affordable through a variety of mechanisms, including limiting member access to specialists and utilization reviews.

Indemnity Insurance
Traditional insurance plans in the U.S. in which members pay a predetermined amount (called premium), usually on a monthly or annual basis, into the insurance fund. Premia are set according to a person"s age, gender, and occupation. In return for the premium, when a beneficiary requires medical care the insurance fund pays the provider, or reimburses the beneficiary for his or her medical expenditures.

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[7] Most glossary definitions are reproduced from Ron, A. et al., 1990.

Mutual (Mutual Benefit Society)
A non-profit organization (often comprised of members from the same profession) which collect contributions to provide benefits (health care, funeral assistance, etc.) to needy members.

Moral Hazard
Insurance raises the probability that a beneficiary will seek medical care for ailments that previously would not have elicited a visit to a doctor.

Sickness Fund
Funds paid into by employers and employee which reimburse employees for health care costs and lost wages due to illness or accident. Generally organized on the basis of profession or industry (e.g., miners, auto workers, etc.), sickness funds often entail social solidarity: for any given fund, all workers contribute the same amount of money, regardless of personal characteristics (e.g., age, gender, etc.) and frequency of claims.

Social Security
Government organized income redistribution program, which may provide a variety of benefits to eligible persons, including income after retirement, and payment of, or reimbursement for, health care expenses. Often social security is financed by a combination of government subsidies, and taxes levied on employees and employers.

Statutory Insurance
Insurance program to which membership is required by laws and statutes. An example is social security health insurance, which requires all employees (private and government) to be members and to pay contributions. Eligibility, benefits, and premia are prescribed by law, rather than determined by actuarial methods as happens with voluntary insurance.

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